

palmtop

The magazine for handheld
computers & communicators

USER

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Submissions

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EDITORIAL

After almost eight years publishing PDA magazines (though the term PDA was, eight years ago, yet to be coined), it's hard not to lapse into a few nostalgic moments when compiling the first editorial for a new PDA publication. In 1994, when work on our first *Palmtop magazine* began, the handheld computer world was dominated by Psion, the small British company that pioneered the very concept of computing in the palm of your hand.

Now, in the second half of 2002, Psion is sadly no longer even a player in the palmtop arena, having ceased handheld development a full 12 months ago. Rather than being wowed by the very concept that handheld computing is even possible, we're now looking at ever more capable devices that combine powerful built-in applications with good (though still by no means perfect) desktop synchronization and a range of wireless connectivity options.

As part of this diversification of the mobile computing concept, it's clear that rather than focusing entirely on a single platform, most users feel the need to stay abreast of all handheld technologies. To that end, we've decided to merge our previous platform-specific magazines for Symbian and Palm OS devices into a single title, now also including Pocket PC.

Palmtop User magazine is the result of that merger, and over the coming issues

Palmtop User is...

Steve Clack - Publishing Editor

Rosemary Rolfe - Distribution Manager

Christian Hayle - Artwork & Design

Steve Litchfield - Sub-Editor

Pete Sipple - Technical Editor (Symbian/Pocket PC)

Steve Turczyn - Technical Editor (Palm OS)

Anne Johnstone - Senior Contributor

Steve Mann - Development Consultant

Thanks to all the contributors whose names appear within the magazine. Thanks also to all those who have kindly supplied their products for evaluation.

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we'll be keeping you updated on all the latest emerging technologies in the world of handheld computing, and bringing you in-depth features on the hottest new palmtop computers and software.

Our combined editorial team has almost 100 years of handheld computer usage between us, so you can be sure that we'll be carrying forward all the expertise gained from our previous eight years of publishing PDA magazines—magazines that have been distributed to more than 130 countries around the globe.

So, welcome to Palmtop User. If the next eight years of handheld development are anywhere near as exciting as the past eight have been, it's going to be an exciting ride.

Steve Clack - July 2002



Handheld News

What's new in the world of handheld computing

All-in-one Treo 270...

Combining a 16MB colour-screened Palm OS handheld and a dual-band GSM mobile phone/modem, Handspring has released the Treo 270. Aside from its 16,000 colour screen and backlit keyboard, the Treo 270 is similar to the earlier monochrome Treo 180. For full details, see our review on page 31.

www.handspring.com

...and the slim Treo 90

Announced at the same time as the 270, Handspring has released details

of the colour, keyboard-equipped Treo 90. Despite being part of the Treo line, the 90 isn't a communicator, having no phone component. It's also not a Visor, lacking a Springboard slot. Instead, it follows the official Palm line closely, with Palm OS 4.1 in ROM and an SD (secure Digital) expansion slot, but for memory expansion only, not I/O accessories.

www.handspring.com

SonyEricsson P800 coming...

SonyEricsson has provided further details of its P800 communicator, due for release in Q3. This Symbian 7.0



device will include a Memory Stick Duo slot (the new, smaller version of Sony's expansion format), will support MP3 playback and come bundled with Sony's Men In Black II game.

www.sonyericsson.com

Palm OS laptop, anyone?

For the first time, Palm OS has been taken outside the handheld form factor. AlphaSmart has announced the Dana, a small laptop computer designed for educational markets, featuring a full-sized keyboard, a 560x160 greyscale backlit screen, two SD card slots, an infrared port, rechargeable or standard battery options, a USB port and 8MB of RAM.

The Dana is to be supplied with a range of educational applications, including word processing, calculator, spreadsheet, ebook reader and an administration program to enable teachers to manage student devices. All bundled applications have been updated to support the wide screen layout, but other third party applications will run within a 160x160 square window. It will be priced at \$400, with bulk discounts available for education.

www.alphasmart.co.uk

www.alphasmart.com



More Cliés

Sony Japan has announced the Clié PEG-T650C, essentially an updated version of the T600C and including an MP3/ATRAC3 player. It uses a slightly improved screen and sports the 66MHz Dragonball SuperVZ processor, but does not have virtual Graffiti. It's assumed that the T650C will be available worldwide in due course.

www.sonystyle.com

Breathing O²

Just released is the 'O² XDA Pocket PC Phone Edition', a fairly standard but stylish Pocket PC but with built-in mobile phone connectivity. See the next issue of Palmtop User for a full review.

www.mmo2.com



PocketGear launch

Essentially a clone of the NEC MobilePro P300 available elsewhere in Europe, UK consumers instead get the Packard Bell PocketGear 2060, with 32MB more RAM and no CF expansion slot. See page 52 for a full review.

www.packardbell.co.uk

Nokia 9210i arrives...

A (slightly) improved version of the popular Nokia 9210 communicator has now been released in Europe, Africa and Asia. See page 38 for a full review.

www.nokia.com



...USA gets Nokia 9290 at last

After seemingly endless delays, the US-specific version of the 9210 communicator, the Nokia 9290, has been released. The 9290 is available at \$600 without phone contract. Functionally almost identical to the 9210, the 9290 runs only on the 1900MHz US GSM waveband.

www.nokiausa.com

Nokia 7650 release imminent

Also new from Nokia, the Symbian OS-powered 7650 smartphone with integral camera is due for imminent European release. See page 43 for a full review.

www.nokia.com

Newly-merged HP's iPAQs

In the wake of the Compaq merger, Hewlett-Packard has announced two new Pocket PC devices, the HP iPAQ 3970 and the HP iPAQ 3950, with "better and brighter" screens and next-generation 400MHz Intel XScale PXA250 processors. Pricing is set at \$750 and \$650 respectively.

thenew.hp.com



Sendo Z100 demo

Sendo has demonstrated its Z100 Multimedia Smartphone recently, running 'Microsoft Windows-Powered

Smartphone 2002' software, also known as Stinger. The Z100 is due for release in Western Europe first, during September/October this year.

www.sendo.com

Kyocera 7135 in the USA

Customers in the USA are to get a new Palm OS smartphone from Kyocera later this year, working on CDMA2000 1x networks. It features a colour screen, SD slot and MP3 capabilities. The design is a clamshell, with screen on one side and



Graffiti area and number keypad on the other. There's also 'assisted GPS technology' and 16MB of RAM.

www.kyocera-wireless.com

Acer XScale

Acer has announced its n20 and n20w Pocket PCs, the latter of which comes with integrated 802.11b connectivity. Both offer 97mm (3.8") TFT LCD screens, Memory Stick expansion, a PXA250 XScale processor and come with 32MB of flash ROM and 64MB RAM.

The 802.11b wireless functionality directly affects the capacity of the batteries of the two models: the n20 battery is 1000 mAH, while the n20w's is 2000 mAH and the latter unit is almost 7mm (0.3") thicker.

www.acer.com

www.acer-euro.com



Toshiba launches e740

Toshiba has launched the \$600 e740 Pocket PC, with built-in 802.11b ('Wi-Fi') wireless networking. Wi-Fi allows devices to share files wirelessly with PCs or computer networks. The e740 uses the 400MHz Intel XScale processor as featured in the forthcoming Compaq iPAQ devices. We'll be looking at both the Toshiba e740 and Wi-Fi technology in more depth in the next issue.

www.pda.toshiba.com

Palm OS pulls further ahead?

According to statistics gathered in March and April 2002, Palm OS handhelds accounted for 87% of the US handheld market and 43% of the European market. Both of these figures are around 10% higher than those gathered at the end of last year. In the enterprise market, Palm OS licensees are claimed to account for more than half of all handhelds sold to enterprises worldwide, compared to 32% for Pocket PC licensees, 1% for Symbian and 16% for all other operating systems.

www.npdtechworld.com

www.canalys.com

www.gartner.com

Palm OS 5 goes golden

The final version of Palm OS 5 has been sent by PalmSource to its licensees, who can now finish the job of developing and releasing handhelds to run the new operating system. The first of these are expected to appear in the Autumn.

At the heart of Palm OS 5 is support for the much faster ARM-based processors, making multimedia and better (128-bit) security possible. Cosmetically, there is support for higher resolution screens and colour themes. On the connectivity side, there's now built-in support for both Bluetooth and 802.11b networking.

Despite the change to ARM processors, OS 5 handhelds will still be able to run a large majority of current applications, which may even run faster on the new handhelds, despite the overhead of running within the built-in Motorola Dragonball emulator.

The memory footprint of the new ARM version of Palm OS is reportedly very efficient, fitting inside 4MB of memory, as does the current OS 4.x.

www.palmsource.com

Update for early Treos

Handspring has released the Treo 180 Series Updater 1.0, which increases the standby battery life of early Treo 180 units to approximately 100 hours from about 60 hours. The Updater also adds an advanced dialog for call forwarding and an improved dialog for ringer preferences.

www.handspring.com

Psion/EPOC digest

A new email digest for Psion and EPOC users has been set up, to replace the now-defunct UPS5 system. Highly

recommended for the expertise of its contributors.

www.psioneering.co.uk/digest.html

Emergency charger

Tech Center Labs has launched a \$50 emergency charger for rechargeable Handspring Visors. Rather than depending on removable batteries like most emergency chargers, this is a Springboard module with its own built-in NiMH battery. It charges while in the Springboard slot and while the Visor itself is charging.

www.talestuff.com

Nokia 9210i video-on-demand

Nokia has recently demonstrated how video content can be multicasted through an operator network, allowing multiple video streams to be delivered to end-user terminal devices such as TVs and PCs. Using Orca Interactive's iTV application software, 9210i communicator users with access to a video-on-demand solution will then be able to view a series of movie trailers and choose the one they would like to be delivered over their broadband network. The solution makes use of the new video streaming over HSCSD networks, introduced in the 9210i.

www.orcainteractive.com

www.nokia.com

Microsoft Portrait

Microsoft's Portrait allows Pocket PC users to chat with other Portrait or MSN Messenger users, and is a research prototype for mobile video conferencing. It supports the .NET Messenger Service and Internet Locator Service on PCs and Pocket PCs, and can run effectively even at low, GSM data speeds.

research.microsoft.com/~jiangli/portrait

Presenter-To-Go on SD

Margi has announced a version of its well known Presenter-To-Go package that fits into an SD slot, pricing it at \$200. Users of modern Palm handhelds with an SD slot will be able to plug into a standard video projector and deliver PowerPoint presentations without the aid of a laptop.

www.margi.com

Thunderhawk

Bitstream, the font specialist, has announced its Thunderhawk browser for Pocket PC. The browser uses Bitstream's



optimised font technology to display large volumes of relatively small text on the 240x320 screens of Pocket PCs, displaying a 640x480 web page view on the screen of a Pocket PC by switching the orientation into landscape format.

www.bitstream.com

Roll your own e-books

Palm Digital Media has launched Palm eBook Studio, an authoring tool for making your own encrypted and protected Palm Reader e-books.

www.palmdigitalmedia.com

PocketMirror replacement

When synchronizing with Microsoft Outlook using the PocketMirror software supplied with many Palm OS handhelds, the standard Address Book only supports a limited number of Outlook fields. PocketMirror's creator, Chapura, has launched a \$25 replacement, KeyContacts, allowing a further 40 fields



to be synchronized, and supporting up to 250 contact categories.

www.chapura.com

Retrofit printers for Bluetooth

Troy Wireless has released the \$160 WindConnect Bluetooth adaptor, which plugs into the back of almost any printer. Together with a software printing solution, such as IS/Complete's BtPrint for Palm OS, users can wirelessly print directly from their handheld.

www.troygroup.com/wireless

OQO causes a stir

Bringing much of the desktop down into handheld territory, at least in terms of size, is the OQO Ultra-Personal Computer, measuring just 124x74x23mm. Despite its size, it is a fully-featured PC with 1GHz processor, 10GB hard drive and 256MB of RAM. It also incorporates a 4 inch VGA display with touch screen. The OQO computer runs Windows XP and is due to be launched at the end of this year.

www.oqo.com



Quickoffice 6.0

Cutting Edge Software has released a major new version of its Quickoffice suite for Palm OS. Version 6.0 includes a redesigned Desktop, VFS expansion card support, a FontConvertor utility to convert TrueType fonts for use within Quickword, a display-zooming feature in Quickword, plus full support for the Sony NR series 320x480 high resolution displays.

www.quickoffice.com

DateBk5 released

DateBk5, the latest incarnation of the single most popular application under Palm OS, has been released by Pimlico Software. Version 5 of this \$25 Date Book replacement includes extensive use of colour, including colour icons and backgrounds, plus a single, large, tabbed dialog for handling all the global preferences. There's also support for higher resolution screens (e.g. Sony and HandEra devices). Version 4 users can upgrade at no charge.

www.pimlicosoftware.com

Hi-res Sheet To Go

DataViz has released a hi-res version of the ubiquitous Sheet To Go that supports the 320x320 screens of Sony handhelds, with a 480x320 version for the NR70 currently in beta testing. It is a free upgrade for registered users. There's not yet a corresponding upgrade for Word To Go.

www.dataviz.com

Clié T-series keyboard

Sony has announced a \$50 Mini Keyboard PEGA-KB20, connecting to the HotSync port of any T-series Clié.

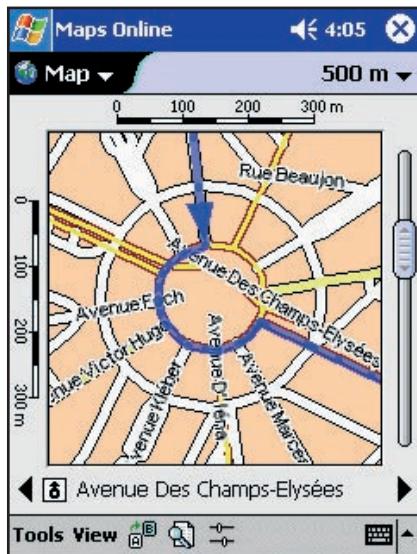
www.sonystyle.com

Software for the 7650

Epocware has released the first third party application for the brand new Nokia 7650 smartphone. Safe is an adaptation of their Code Vault for the Nokia 9200 series, an encrypted database for passwords and other confidential information. Safe also comes with a module that integrates into the Nokia PC Suite, allowing encrypted data to be accessed from the desktop as well as on the 7650 itself.

www.epocware.com





Maps as you need them

TomTom has launched Maps Online for both Pocket PC and Nokia 9210/9290 platforms, with a Palm OS version in the works. Maps Online is a wireless mapping and routing application, giving access to detailed, street-level maps of 12 European countries without the need to pre-load any data from CD. The maps are downloaded as and when needed, with download times kept to a minimum by using "proven and state-of-the-art technology" and "fast, high-ratio compression". Maps Online is a subscription service, costing €5 a month. We'll feature a full review in the next issue.

www.tomtom.com

Police grab the Treo

Police Information Management System (PIMS) is a new software tool based on the Handspring Treo. It's fully GPRS aware and can be used by police departments to help bring crime under control, with databases for stolen goods, criminal records and road traffic data.

www.pickledparrot.co.uk

Handspring losing its Edge

The Visor Edge has been discontinued by Handspring, its web site now listing it as no longer available. The Edge was Handspring's first and only attempt at making a slimline handheld device, but sales were always disappointingly low.

www.handspring.com

Revo backlights for all?

A small British company has launched a service offering to retrofit Psion Revo and Revo Plus palmtops with backlights. See the URL below for current availability.

www.chasenrecordings.com/psion/news.html



Palm OS 4.1 updater

Palm has released a free 'updater' to flash its m500 and m505 models to the latest Palm OS 4.1. This includes several patches that have been available separately, including one that resolved issues with using memory cards larger than 32MB. It also includes Copy Update, which lets the Launcher's Copy function copy user data associated with an application. It's not currently possible to install the upgrade from either Windows XP or Mac OS X.

www.palm.com/support/downloads/palmos41.html

512MB on SD

I-O Data is now producing Secure Digital (SD) Memory cards with an incredible 512MB capacity. 1GB cards are expected on the market shortly.

www.iodata.com/products/Memory/MemoryProducts.html

Palm communicator rumours

Pocket PC Thoughts.com briefly released pictures of a new device from Palm Inc., code-named 'Oslo'. It's rumoured to have a high resolution colour display, speaker and microphone, which suggest this may be a communicator device. It appears that in 'telephone mode' the casing can slide closed, hiding the Graffiti input area and giving the unit a smaller form factor. The pictures were quickly removed from the web site, apparently at the request of Palm's Director of Global Information Security.

Recommended reading...

We've been impressed by two recent book publications. '**Piloting Palm**' (Wiley) is a stirring read, chronicling the life and times of Jeff Hawkins and Palm Computing. There's a huge amount of previously unpublished material here, written skilfully so as to involve the reader emotionally. You'll spend the first two-thirds of the book willing Palm to succeed (they very nearly didn't, as you'll discover) and the last third learning of the disadvantages of being a large corporation.

www.pilotingpalm.com

A title like '**NS Basic Programming for Palm OS**' (The Eastwood Group) wouldn't normally rate a review here, except that NS Basic is the closest thing to Psion OPL for the Palm OS platform. In other words, for all current and ex-Psion readers who have dabbled in the Basic-derived OPL, NS Basic provides a fairly easy way to port program code onto any Palm OS handheld. This new tutorial book is chattily written, easy to follow and pitched at just the right level, relegating the official NS Basic manual to the back of the shelf.

www.nsbasicprogrammingforpalmos.com

Software Shorts

We take a brief overview of the latest software for your handheld...



A better photo album

The Imaging application built into the Nokia 9210/9290 is perfectly adequate for viewing photographs on your communicator, but m-internet's **IAlbum** offers plenty of extra features to attract. As well as grouping your images into Albums, just like Imaging, it's possible to browse through all your photos in an excellent split-screen display, showing both a file manager tree and thumbnails of all your snapshots. There's full support for JPEG, GIF, TIFF, BMP, PNG and MBM file formats, together with a simple slideshow feature that allows you to fit images

to suit the screen size and apply a preset delay between image transitions. It's a pity there are no options to fade or apply other decorative effects during the slideshow, and you'll still need to use the Imaging application to save files into different formats, but IAlbum is still a must-have for anyone serious about storing images. It costs \$35.

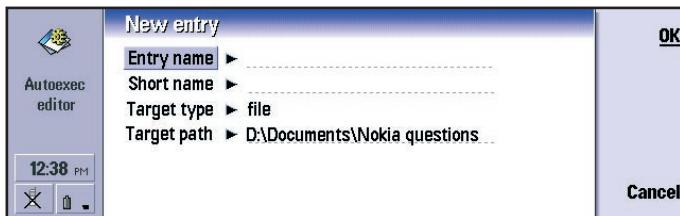
www.m-internet.com

The universal auto-starter

Although not the first to offer auto-startup of selected programs at bootup time, Symbianware's \$5 **Autoexec** for

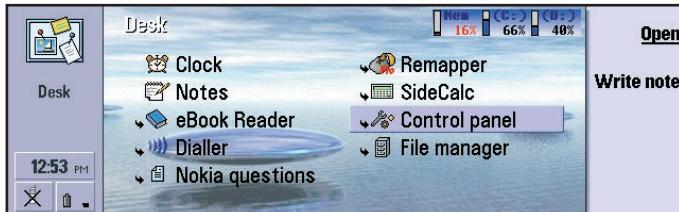


IAlbum adds plenty of functionality beyond the standard Nokia Imaging application



Auto-launch both programs and files at bootup with Autoexec for the Nokia 9210/9290

SmartMemory adds a useful bank of storage 'fuel gauges' to your Nokia 9210/9290
Desktop



the Nokia 9210/9290 allows individual data files to be selected, as well as applications. Setup is very straightforward, and allows descriptive titles to be added to the list of your auto-launch items.

www.symbianware.com

Where's my memory?

Always useful on a machine where free memory space is so often an issue, **SmartMemory** for the Nokia 9210/9290, also from Symbianware, adds a fuel gauge-style display of free RAM and the contents of both C and D drives at the top of the display while in the Desktop and/or Extras screen. Colours

can be adjusted to give visual warnings when free space reaches a pre-set level on each gauge. At only \$3 it's a must-have for all heavy communicator users.

www.symbianware.com

Contacts again

We've waited over two years for a better contact manager for EPOC and now along come two together. Page 56 has our full review of iContacts, but this is the rather oddly-named **DreamConnect**. The main improvement over standard EPOC Contacts is that there's a proper category system, with contacts able to be associated with more than one category



DreamConnect, strangely enough, is a Contacts replacement for your Psion

Playing Bride's Favourite, The

TunePal for the Psion
—a useful musician's aid

SeaPad for the Psion range
offers a whole raft of data for the sailor

at a time. Frustratingly, the trial version is crippled so that you can't try out all of the category functionality, nor can you even use your real Contacts store until you purchase the \$28 full version.

www.dreamspring.com

Do-Re-Mi, ABC

Also freeware, from Bryan Duggan, is **TunePal**, a Series 5/5mx player for the popular ABC Internet tune format. This is used by musicians to archive melodies for learning purposes. TunePal can slow down or speed up a tune, transposing it into a different key if necessary. The ABC format is plain text at heart, so you can create or edit tunes in any text editor or word processor.

www.bryanduggan.com/music.html

Ahoy there!

New for Psion-owning sailors from Jean-Yves Pontailler is the freeware **SeaPad**, with which you can keep track of all your cruises quickly and easily. In addition to being a plain logbook, SeaPad displays the main parameters of the current cruise, calculates the height of the tide, retrieves your position from a GPS receiver, saves your watch reports and also creates an archive when the cruise ends, into a text file that you can easily consult or print.

SeaPad's main display shows relevant parameters while you are sailing: sailing and entry ports, distance to cover, weather report, tide height and current position (if a GPS receiver is connected).

p.pellet.free.fr

Movie mayhem

Kinoma has just gained the high ground in the ever-accelerating race to produce true digital multimedia solutions for Palm OS. The \$30 **Kinoma Producer** can convert videos, audio or still images for viewing on a wide (and right up to date) range of Palm OS handheld screens. Like TealMovie, it's QuickTime-based and can therefore be a little picky over which file types it will import, but playback quality is surprisingly good. Digital video is very hungry for disk space and it's good to see that the freeware **Kinoma Player** has full expansion card support.

www.kinoma.com



On-screen movie footage with Kinoma

Network those Palms

Perhaps a triumph of technology over practicality, but nonetheless extremely impressive is **Colligo Meeting**, which sets up an ad hoc Bluetooth network between all compatible Palm OS handhelds in the vicinity. Meeting scheduling software then kicks in to allow you to invite others to participate and to display just the time slots that everybody can make. Once finalised, the software can even make the appropriate appoint-



The screenshot shows a software interface for 'Colligo Meeting'. At the top, a blue bar displays 'Apr '02' and 'Week 16'. Below this, a window titled 'Your free 01:00 hr slots:' shows a list of time slots: 'Mon 4/15/02' with '6:00 am - 8:00 am' and '9:00 am - 11:00 am'. A section titled 'Calendar Sharing Progress' contains the text 'Sharing calendars with partners...' and an icon of a smartphone. Below this, a message says 'Replied 0 of 4' with a 'Cancel' button. At the bottom, a blue banner reads 'Prepare for a Bluetooth-fest with Colligo'.

Prepare for a Bluetooth-fest with Colligo

ments in each person's Date Book automatically. There's an excellent Flash demo of the system in action on the Colligo web site. Now all you need are Bluetooth-equipped Palms for all your colleagues and \$20 a shot for Colligo Meeting...

www.colligo.com

Acid house

AcidImage is a comprehensive image viewing solution for Palm OS handhelds with expansion cards. It costs \$20. There's a special nod to those with compatible digital cameras, as it allows the reading of BMP, GIF and JPEG images directly from an SD, MMC or Memory Stick. Full colour images can be panned and zoomed at will, from 1% to 1600%, on any size Palm OS screen. A Quick Slideshow feature works well to show off your snaps to interested colleagues.

www.red-mercury.com

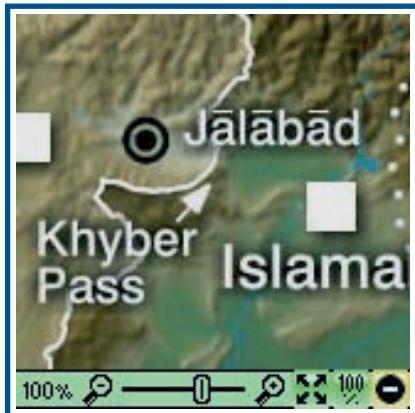


Image viewing with AcidImage

Taking DOC to the limit

TealDoc for Palm OS has always done things its own way, but at least its developers have had the confidence to take the idea to its limits. Building on the basic DOC ebook format and including all the basic DOC reader concepts such as bookmarking and autoscrolling, TealDoc adds images, notes and hyperlinks. These are created by adding HTML-like tags to the document text and then using the new supplied TealDoc Maker utility for Windows. Also new in this major release (5.0) is anti-aliasing of text fonts on colour screens. TealDoc costs \$17.

www.tealpoint.com

Fast contact lookups

Contacts Pro 2.3 (previous versions were known as PhoneMate) offers one-handed lookup of contacts on a Palm OS handheld using a T9-like input system. Tap the letter keys to make up the first few characters of the last or

Entertainment

- [American eagles ready for TV...](#)
- [Space program subject of...](#)

Invention seeks to follow success of bionic ear

Dr. Alan Chow examines Robert Rosene, who lost his eyesight through a degenerative disease and was the first to get an artificial silicon retina

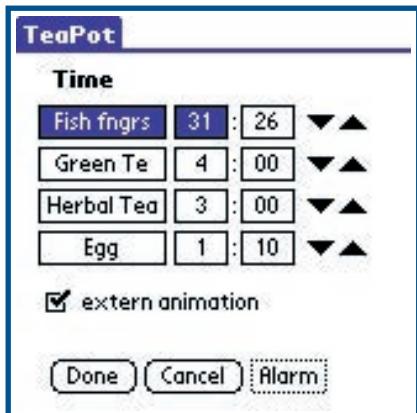


Rich document viewing with TealDoc

first name you want, and Contacts Pro does its best to match your taps with real names found in your Address Book database. Once found, an extra tap brings up full details. The program has been fully updated for recent Palm OS models, including rocker switch selection, activation and dialling on the Handspring Treo. With an offline handheld, dialling works via infrared to a mobile phone/modem.



T9-like text input with Contacts Pro



TeaPot timer is a simple countdown utility

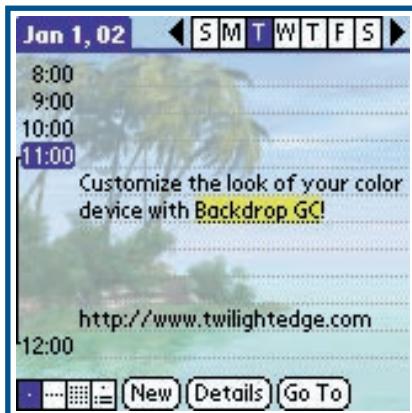
PhoneMate users can upgrade for free, registration is otherwise \$20.

www.mobimate.com

TeaPot timer

From Henk Jonas comes this nice little freeware utility, in theory designed to make sure your tea doesn't stew. In fact, **TeaPot** is essentially a countdown timer with up to four preset favourites and a choice of system sounds to alert you when the count reaches zero. Each of the four timers can be renamed and set to any time delay (up to 99 minutes), making TeaPot useful for such things as food in the oven, boiling eggs, remembering to turn a cassette tape recording over, and all the other little activities that fill our daily lives.

www.metaviewsoft.de



Wallpaper for your Palm—Backdrop GC

System wallpaper

Not everyone's cup of tea, to be sure, but many users love to personalise the look of their handheld. Twilight Edge Software's \$16 **Backdrop GC** allows any 160x160 pixel square image to be used as 'wallpaper' within any or all of your Palm applications. As well as choosing which programs will use the background image, the brightness can also be changed on the fly to prevent the image from spoiling the readability of the text on screen, and the text colour itself can also be changed. The ability to disable Backdrop GC in selected applications is important, as it does cause some odd screen behaviour in a few programs, but once properly set up it works extremely well—brightening up those dour white screen backgrounds no end. Separate versions are also available for greyscale and older Palm OS models.

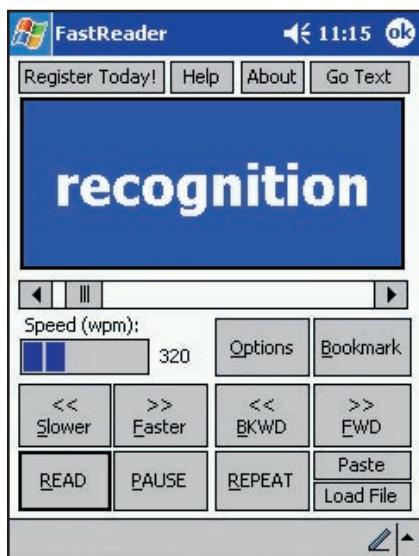
www.twilightedge.com

Fast reader, fast learner

FastReader for Pocket PC uses a system called *Rapid Serial Visual Presentation*, which was originally patented by the US Air Force to transmit commands to pilot's eyes as quickly as possible. The concept involves the computer flashing words at you sequentially, with subtle pauses to indicate punctuation. Simply load in a file (text, Palm DOC, Word, PDF or HTML) and start off the process. Most formats work well, although there are occasional delays loading converted Microsoft Word files.

The technique allows you to read an electronic book, speed-read a presentation, help memorise a speech, or for 'Subconscious Programming'. Don't forget to blink though—nicely customisable and flexible, FastReader costs \$15.

www.brainclone.com



Faster reading and learning with FastReader

The ultimate lister

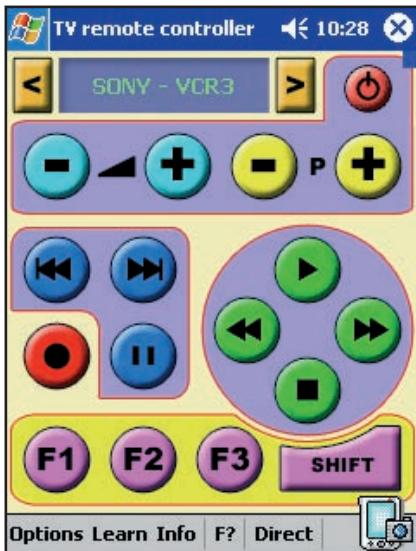
A direct port of the Palm OS title of the same name, Ilium Software's **ListPro** for Pocket PC takes the basic concept of a shopping list manager and adds lots of extra power and flexibility. You can use indenting and outlining features, add alarms to items and save commonly-used layouts as templates for repeated use. As well as the handheld program, there's an optional PC desktop version so you can view and manage all your shopping lists, gift lists, holiday packing lists and lists of your favourite restaurants on the big screen.

If you're the kind of person who likes to keep lots of lists, you'll probably love ListPro. It costs \$25 for the Pocket PC (or Palm) version, or \$30 including the desktop PC component.

www.liumsoft.com



ListPro in action

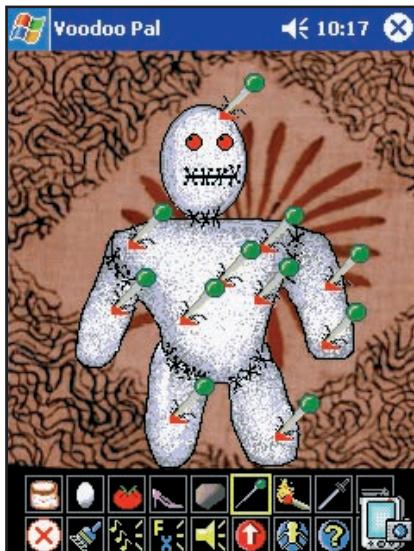


A TV remote controller with pizazz!

Your PDA remote control

Controlling your TV and VCR from a PDA is something that's been around for a while now, but has sometimes been a little hit-and-miss. PDAdwin's **TV Remote Controller** for Pocket PC uses your device's built-in infrared (so its range is limited accordingly) to control up to 38 pre-defined devices, can 'learn' from your original remote control handset and is 'skinnable', so you can design your own button layout or import one from the PDAdwin web site. Best of all, you can voice-control operations. We're so impressed at the sophistication and power of this application, we'll be looking at it in more depth in a future issue. Note that TV Remote Controller is designed for StrongARM Pocket PC processors only. Priced at \$20.

www.pdawin.com



Stress relief in the palm of your hand

Voodoo revenge

Don't get mad, get even! If you've had a bad day at the office, suffer from road rage, or had a bad meeting with the bank manager, revenge can be yours in the form of **Voodoo Pal**, your very own electronic voodoo doll for Pocket PC. Name your foe with the on-screen keyboard and then choose your weapon from toasted marshmallows, rotten eggs, rotten tomatoes, high-heeled shoes, rocks, stick pins, fire, daggers, and a revolver. Hear your foe "eek" and "ouch" with each attack, and afterwards, try to get the little looped song out of your head!

\$5 buys you a lot of harmless stress relief, and nobody gets hurt...

www.cosiesoft.com

A CLOSER LOOK

REVIEWS REVIEWS REVIEWS REVIEWS REVIEWS REVIEWS REVIEWS REVIEWS

Star Ratings:

★★★★★	Excellent
★★★★★☆	Good
★★★★☆☆	Average
★★☆☆☆☆	Fair
★☆☆☆☆☆	Poor
☆☆☆☆☆☆	Dismal

Interpreting reviews

Quality: the Quality star rating reflects how well the product works, whether it includes all the features you'd expect, whether the interface is consistent and easy to use, and in data-based products it also reflects the quality of the information contained in the program.

Value: the Value star rating reflects the value for money of the product, taken within the context of what the program (or other product) does. Therefore a simple utility program will be rated differently to a sophisticated application at the same price.

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Sony Clié PEG-NR70V

Sony is gaining something of a reputation for producing state-of-the-art Palm OS handhelds, and the latest Clié NR70V is unquestionably the most convincing contender to date.

Just take all the features of Sony's previous flagship T615C/T625C model and add the music player capabilities and handy remote control clip of the earlier N760C/N770C. Expand the 16-bit colour TFT display to 320x480 pixels, incorporate a collapsible, soft-

ware-rendered Graffiti gesture recognition area, a 42-key keyboard and a CMOS digital camera. Finally, power this package with the fastest Dragonball processor yet—the 66MHz SuperVZ.

Put all these goodies into a brushed-aluminium clamshell casing with the screen in the upper half and the keyboard in the lower, and install a clever rotating hinge that lets you close the clamshell with the screen facing out, for traditional 'tablet mode' use. Wrap it all up with a design-conscious docking cradle with matching aluminium finish and a clear Lucite backrest.

You'd be right to assume that the device is bulkier than recent handhelds, but not excessively so. When closed (what Sony calls 'carrying style'), the thickness is 18mm (0.7"), but the Clié NR70 has little need of an additional cover or case that would add further to the size. The Sony is also longer than any previous Palm OS handheld at 140mm (5.5") and slightly heavier, but is also narrower than most. Most importantly, the NR70 is comfortable in a jacket pocket, and can be worn in a shirt pocket at a pinch.

The hinge mechanism is firm enough that the two halves won't flop open, so you need to use both hands to do it. The two halves swing open to a maximum of about 175°, to avoid interfering with Memory Stick expansion devices that might protrude from the slot at the top of the lower half. Once in the open position, the device feels rather top-heavy, and the infrared port is hidden by the top half, a small annoyance that has to be overcome by closing the clamshell a few degrees before beaming files to another device.





When the screen-part of the clamshell is rotated to face outwards and the two halves are closed ('turned style' or tablet mode) the unit looks like a more traditional Palm OS device, although in this position there is no access to the hardware buttons, which is disconcerting. A freeware software 'Hack' is available (from Smoky Monkey Factory, at andmore.jp/mobile/en/modules/news) that lets you simulate pressing the hardware buttons by tapping on certain reserved areas of the screen. The screen image is automatically inverted when rotating the screen, so that the display is always upright for the user.

The four Palm OS application buttons for Date Book, Address Book, To Do List and Memo Pad are near the top of the lower half, which makes them comfort-

able to press while holding the device open. The scroll buttons are larger and slightly more accessible than on other recent Sony models, but still uncomfortably small and flush. The power button is on the hinge and displays a green light when on. Immediately to the left of this is the amber charge light, which also blinks when an alarm is activated. The power button is disabled when the device is in closed mode.

On the side, below the earphone jack and audio remote control jack, is the expected and useful Sony Jog Dial that mimics the operation of the usual Up/Down scroll buttons, and below it is the 'Back' button, the virtual 'Esc' button that's also been present on all recent Sony devices. Below that is the 'Hold' button to prevent accidental activation while not in use.

Above the earphone jack, in the hinge of the device, is the 'capture' button for the built-in digital camera.

The built-in keyboard is slightly smaller than some third-party thumb keyboards available for other devices, with fairly good tactile feedback, though it has no backlight and so is difficult or impossible to use in dim lighting. There are no dedicated numeric keys, but there's a new 'numeric shift' mode indicated by a figure '1' in the shift indicator used by almost all input-capable applications. There are keyboard shortcuts for the Application, Menu, and Find icons and also for text-select, copy, cut, paste and previous/next field jump. There are also shortcuts for Jog Dial and Back button operation.



An application (DateBk5) in 'normal' mode, showing the virtual Graffiti input area...

The screen itself is a major delight—clear, crisp and vivid. The only imperfection is a row of slight shadows that appear across the top of the screen, which appear to be generated by the placement of the frontlight LEDs. The overall quality of the screen makes it easy to forgive this minor imperfection, with the lowest brightness setting about the same as the maximum brightness setting on the Palm m515.

Sony's technique of using a 'virtual' Graffiti screen area is a design feature pioneered by the HandEra 330 more than a year ago. Graffiti gestures can be entered in the bottom area of the screen as per usual, but this is simply part of the main screen rather than a separate input window.



...or in full-screen mode, with the Graffiti area temporarily removed

This has the major benefit that the text input area can be collapsed in applications that support the larger screen area, to provide more space for viewing data. If used for Graffiti input instead, the area is of course illuminated, making it usable in complete darkness. Also, the Graffiti area provides visual feedback, briefly echoing your strokes on screen.

Another novel addition is that the built-in software allows the Graffiti area to display a virtual keyboard instead, which many users will find easier to work with. A useful extension to this would be the ability to replace the virtual keyboard with customised layouts, such as used by FitalyStamp (see page 73).

Below the Graffiti area is a handy status bar, which shows the current



Replace the Graffiti area with a virtual keyboard if you prefer

battery status, time, and the presence of a Memory Stick expansion card. If the Graffiti area is collapsed, the status bar remains visible in most applications, although some graphical applications such as image viewers can suppress it for cosmetic reasons. At present there are a small but growing number of applications with NR70 full-screen support, including AcidImage, Action Names Datebook, Bonsai, DateBk5, DayNotez, iSilo, Quicksheet, TinySheet and WordSmith. Applications without direct support will simply run in conventional mode, with the Graffiti area always visible.

Disappointingly, the only bundled application with full screen support is PhotoStand, which lets you project



The Clie Camera application makes it incredibly easy to take fun snapshots

a slideshow of images on the screen, with various transition effects or with analogue or digital clocks accompanying them. As suggested by the application name, the result is to turn your Clie into an attractive electronic photo stand while in the charging cradle.

The digital camera lens is housed inside a wheel built into the hinge part of the clamshell, and can be rotated by 300°. The camera application is easy to use, as the dedicated button on the left side of the hinge both starts the application and acts as a shutter release.

At a maximum resolution of 320x240 pixels the image quality is poor by current digital camera standards, but it adjusts well to various lighting conditions despite the lack of a flash option. Various



special effects can be applied directly to images: sepia, black and white, negative image and 'solarization'.

The limited image resolution means that this isn't a serious camera solution, but it's quite acceptable for casual use and the occasional unexpected 'fun' shot shared via email. The images can be imported into the bundled Clié Paint application, where you can add a variety of clip-art such as thought balloons, bow ties, porpoises and broken hearts, reinforcing the 'fun' nature of the camera.

The camera offers three resolutions: 320x240, 160x120 and 88x88, the last of which is particularly useful for taking a thumbnail picture to attach to an Address Book record. The process of attaching a picture is childishly simple: take the picture, open the Address Book record



AudioPlayer brings MP3 and ATRAC3 music player capability to your handheld

and tap where it says 'No Image'. You then select the image you've just taken and you're done. If you're beaming your business card to a fellow NR70 user, you can choose to include your picture.

Pictures can be stored directly on an attached Memory Stick in JPEG format, which is both economical in space and convenient for sharing with others.

As a music player, it is surprisingly easy to download an audio CD into the Clié, converting into ATRAC3 or MP3 format for the AudioPlayer. If played back via the built-in speaker the sound is understandably tinny, but the sound via the earphones is excellent. AudioPlayer can play in the background while you work on other tasks or games, or you can disable your handheld completely with the hold

It's easy to add a photo to Address Book entries, either by beaming or with the camera

button and just use the supplied remote control unit to play or stop, select tracks and adjust volume. The remote control has a convenient clip, and the excellent design of the buttons makes it easy to use just by feel. The earphones supplied are fine, though not the same attractive design as the ones supplied with the earlier N760C/N770C. If you have your own favourite earphones, simply plug those into the remote control instead.

In addition to the features already described, the NR70V comes with all the software and features that were provided with the T615C/T625C, except the vibrating alarm. The Infrared Remote Control software is usable for remote control of your TV, VCR and DVD player, but fairly limited. Those



with satellite boxes will be disappointed to find they'll still need to use the manufacturer's remote unit, and OmniRemote (www.pacificneotek.com), which added this much needed functionality to earlier Cliés, sadly doesn't work with the NR70V at present.

The gMovie application is included, and thanks to the SuperVZ processor, movies play well on the device, although they're still demanding of memory. The 16MB of internal memory is therefore welcome, as is, of course, the Memory Stick expandability, with cards currently available with capacities of up to 128MB.

The polyphonic alarm sounds are a pleasant change from the 'beep boop' of earlier devices, and you can now upload WAV files to customise your own alarms, a feature novel to Palm OS, although old hat to Pocket PC and Symbian users.

The NR70V also comes with the standard complement of Memory Stick utilities, including MS Backup, which will back up your device quickly and completely, MS Gate, which lets you move items between memory and an installed Memory Stick, MS Autorun, which lets you specify a launch application when a Memory Stick

is inserted, and the very useful MS Import, which makes your Memory Stick appear as an additional drive on your Windows computer. One wonders why other Palm OS device manufacturers don't include such useful utilities with their own VFS expansion devices.

For those with a business side to their nature, Sony bundles in Documents To Go (standard edition) for Microsoft Word and Excel compatibility, and Intelisync for Outlook synchronization.

The Japanese and US models are available in two styles: the NR70, which lacks the camera, and the NR70V, as reviewed here. Sony has chosen to release only the NR70V in Europe (as the NR70V/E), which would suggest that the with-camera model has so far been the more popular consumer choice.

Sony is a leading supplier of Windows computers, and so continues to give short shrift to Macintosh users. There

is a third party solution, 'The Missing Sync' (www.markspace.com), but it's still inconvenient to have to cobble together a working set-up while Windows users have it all ready out of the box.

The NR70V is relatively expensive at about £450. For style and features it's unequalled in the Palm OS world though, and devices this beautiful deserve to be owned.

Steve Turczyn

Sony Clié PEG-NR70V

From: All major Sony dealers

Contact: www.sonystyle.com

Price: £450 inc. VAT

Quality:



Value:



The more you put into it...

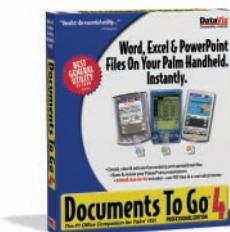


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Handspring Treo 270

The Holy Grail of mobile computing, for as long as I can remember, has been a single, truly pocketable device offering voice telephony, full and always-on Internet access, powerful applications and a clear and intuitive interface. Handspring's new Treo 270 is perhaps the first handheld 'communicator' to really fit the bill, and the week or so I spent waiting for the review unit went painfully slowly. Every day I would struggle on with my existing Handspring Visor and Ericsson mobile phone, with every minor inconvenience (clutching two boxes, balancing phone on my knee to line up the infrared ports, Graffiti errors, etc.) suddenly highlighted by the fact that I knew it would soon be a thing of the past.

Of course, there have been other 'one box' solutions before (the Nokia 9210, the Kyocera smartphones, etc.), but they've all fallen down on some point or other—usually size and weight. The

Treo 270 does it all and is tiny, at 150g (5.3oz) and only 110mm (4.3") tall. And, like current tiny mobile phones, it's so surprisingly light that it really can go everywhere, into any pocket or pouch. The earlier monochrome Treo 180 was excellent, let down only by a rather murky screen and unlit keyboard. While not the brightest colour screen in the world, and physically a little small, the backlit (160x160 pixel) display in the 270 is generally good. Outdoors in bright conditions it naturally suffers the usual malady of backlit colour screens, blacking out to the point of being virtually unreadable in direct sunlight.

Having a single-box solution means not only less to carry (one less unit, no cables or adaptors) but also less to go wrong. For anyone who's ever struggled trying to troubleshoot a handheld/Bluetooth card/phone combination, having everything preconfigured and all within one casing will seem very enticing.

Essentially, the Treo 270 is a 16MB, 33MHz Palm OS colour handheld, with a data-aware, dual-band (900/1800MHz in Europe, 900/1900MHz in the USA) GSM mobile phone and modem built-in. The plastic casing is finished in 'Steel Grey' and well-moulded, feeling just right in the hand. The large front flip cover serves two purposes. Firstly, it's a protective screen cover when the unit is not in use, with a transparent window onto the screen when acknowledging alarms or perhaps simply checking the time. Secondly, it houses the phone component's earpiece/speaker, opening at just enough of an angle to prevent facial grease from smudging the Treo's screen when chatting. The flip cover





hinge is somewhat bulbous, but this is hopefully a sign of robust engineering of the largest single moving part in the design. Additionally, the hinge's bulk provides a useful grip when extracting the Treo 270 from a case or pocket.

There's a 'Jog Dial' rocker switch on the left hand side of the unit, acting as an alternative to the main Scroll up/down buttons, and a couple of controls on the top (power and ringer setting), but the exterior is otherwise relatively sleek. A small door on the rear of the case opens to allow a standard phone SIM (Subscriber Identity Module) card to be slotted in.

Incidentally, there are no fewer than three different ways of pressing the power button. Press once for handheld on/off, hold down for phone component on/off and press twice for keyboard backlight on/off. This tripling up can have unfortunate results, such as trying to turn on the keyboard backlight in the midst of an important speakerphone call, getting the keypress slightly wrong and accidentally turning the phone off.

With the speakerphone you can quite happily carry on working with the Treo's applications during a call, even in the pitch dark, thanks to the truly wonderful backlit keyboard. Every key on the keyboard has an alternate 'Option' character assigned to it, and those with numbers have an extra translucent section cut into the key to help them stand out in dark conditions.

Old Palm hands reading this will rightly regard the Treo keyboard with a degree of suspicion. Surely Graffiti gesture recognition is the true Palm OS way and anything else is a gimmick? Well, Graffiti is still there, within the Treo ROM, as I found out by installing the Newpen utility (available from www.palmgear.com), so hardened gesture writers can always fall back on this if all else fails. But it won't—the Treo keyboard works very well considering its size. When typing text it feels quite slow and awkward, but that's just because it's frustrating when compared to a desktop keyboard. In my own tests, I was able to keep up 25 words per minute quite easily, around twice my usual (careful) Graffiti rate. Having a keyboard also comes in very useful when operating the Treo one-handed.



One extra benefit of using a keyboard for input is that there's no Graffiti area to scratch and wear out. A possible downside is that there are more moving parts to go wrong, although the key travel is

Keyboard ▾ **Accents**

How to enter an accent (such as é)

- Type an 'e'.
- Press the ListType key.
- Use the Scroll buttons to select an accent.
- Press Space or continue typing to enter the selected accent.

Try it!

é è ê

[Previous](#) [Next](#) [Palm OS Tips](#)

Part of the built-in keyboard tutorial

minuscule (with a clicking action) and I'd expect the mechanism to last a lifetime. The only reliability worry might be the speaker wiring in the hinge, but I'm reluctant to predict trouble where there might be none.

The keyboard includes special buttons for the commands and applications on the old Graffiti area: Find, Applications and Menu, plus a special ListType button. This latter takes the last character entered on screen and offers up similar 'special' characters. Hence 's' suggests 'ß', 'š', 'š' and the Graffiti ShortCut stroke, while '+' suggests '&' and '3' suggests '³' and '¼'. You get the idea. Mind you, without having a convenient chart of all the mappings, it's sometimes a little frustrating tracking down the obscure symbol you need.

Although not extensive, Handspring deserves some credit for providing a built-in keyboard tutorial, introducing the main control keys (Option, Shift, Menu, etc.) and providing an active field to practice in.

The four hardware application buttons are mapped by default to 'Phone-Book', 'Date Book+', 'Blazer' and 'SMS', with Option key alternatives set to 'Memo Pad', 'To Do List', 'City Time' and 'Calc'. Out of the box, you can modify the first four in 'Prefs', as you'd expect, but you'll need the extra 'Buttons-T' preferences panel from www.mindgear.com (one of the original Treo software developers) to gain access to the Options button alternatives. The latter also lets you change the application triggered when the flip cover is opened.

In terms of software, the Treo 270 is a fairly standard Handspring handheld, running Handspring's implementation of Palm OS 3.5. As with all previous Handspring models, the Treo comes pre-loaded with the excellent enhanced Date Book+ instead of Palm OS Date Book (and for the first time there's no option to use the standard Palm Date Book instead, by the way), the City-Time world clock and a comprehensive scientific and financial calculator. Being

a communicator, the latest version of the market-leading Blazer web browser is also bundled, along with a good SMS client.

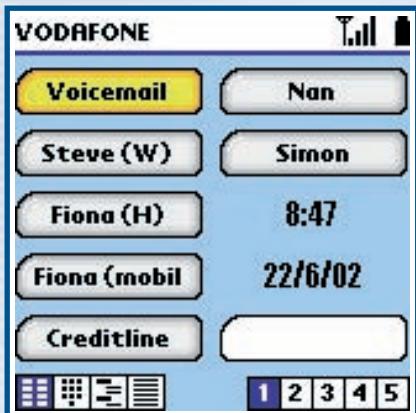
The final point of note in the software is tied intimately into the operation of the phone component itself. PhoneBook is an impressive application that combines (up to 50) voice speed dial panels, a standard numeric keypad for manual dialling, an enhanced Address Book (with appropriate dialling intelligence) and an excellent call history. When a call comes in (with caller name display, of course), merely opening the flip answers it (or Scroll up ignores the call if it's not convenient to answer) and you're off and running. During the call there are large on-screen buttons for hanging up, switching to the speakerphone and a dialling pad (for putting numeric tones into automated systems). Either the rocker switch or the main Scroll buttons can be used to increase or decrease the earpiece/speakerphone volume.



The week view in Date Book+



Using the Treo 270's SMS client



PhoneBook's Speed Dial panels, with two set to show current Date and Time

There's no room here to describe every possible feature of PhoneBook, but suffice it to say that it's intuitive and very well thought out. Most people's favourite PhoneBook feature will be the intelligent name lookup. From the main Speed Dial screen, simply type in the first few characters of anybody's first or last names, and your contacts database is instantly filtered to show only matching entries



A typical Call History entry, available for both incoming and outgoing calls

and their available telephone numbers. A final touch is that any of the Speed Dial panels can be configured to display the current date and/or time, using &date and &time shortcodes.

The ringer switch on the Treo 270's top is configured within Prefs, with a choice of ringtones, volume and vibrate for the



A voice call in progress



Setting up the Ringer tunes and preferences

'Sound' mode and just vibrate on/off for the 'Silent' mode.

Everything about the Treo oozes usability and efficiency, as you might expect from the original PalmPilot creators. For example, you can acknowledge alarms using the Scroll up key, to save opening the flip cover, the keyboard backlight turns itself off after a few seconds if turned on automatically in phone mode, but stays on indefinitely if activated manually, and the screen backlight is automatically dimmed after a few seconds when on a voice call.

Voice quality over the internal earpiece was noticeably inferior to a typical modern mobile phone, but still usable. Ditto for the speakerphone, with speech sounding rather compressed.

The Treo range uses yet another new HotSync serial/USB connector, and a slightly fiddly one at that, but quite usable.

A few power users will bemoan the lack of any memory expansion option, though given Palm OS's admirably frugal use of resources (few applications are more than a few hundred kilobytes in size), the internal 16MB is more than ample for at least 95 percent of the Treo 270's intended audience.

At £550 inc. VAT without a phone contract the Treo 270 certainly isn't cheap, but if purchased with a contract it comes in at a more palatable £350 or so.

Also included in the box is a headset for hands-free operation, which plugs into the Treo just above the rocker switch on the left of the unit. The software bundle on CD is a little bare, with just the 'One-

Touch Mail' POP3 email client and the usual HotSync and synchronization kit for PC and Macintosh. There's no 'office' software, but then the Palm OS world is currently swimming with candidates, and indeed many Treo purchasers will already own a suitable office suite.

Although currently limited to slow GSM data rates, a soon-to-be-released software patch will give the Treo full GPRS functionality, enabling high speed data transfer via an 'always on' connection.

The last time I was this excited by a new gadget was in 1992 with my very first Psion Series 3 palmtop. Nine years later I'm not only impressed by how far handheld computers have come, but also amazed by having one sitting almost unnoticed in my pocket.

Jeff Hawkins and the team at Handspring envisaged this device right from the start, and three years of Visor sales have financed and brought to fruition their vision. The Treo 270 is a landmark device and one to which I'm happy to add my wholehearted recommendation.

Steve Litchfield

Handsprint TREO 270

From: All major Handspring dealers

Contact: www.handspring.com

Price: £550/£350 inc. VAT approx. (see text)

Quality: 

Value: 

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Nokia 9210i

Pundits and PDA owners from only 10 years ago would be both amused and astonished to hear that the most powerful handheld word processing application of the early 21st century would be built into a *mobile phone*.

Functionally little different from its 2001 predecessor, the 9210, and its recently released US brother, the 9290, calling the Nokia 9210i a 'mobile phone' is little short of insulting. Running a full suite of office applications based upon those built into the Psion Series 5mx and its siblings, the 9210i is a powerhouse of a PDA with excellent GSM phone functionality seamlessly integrated into the package for good measure.

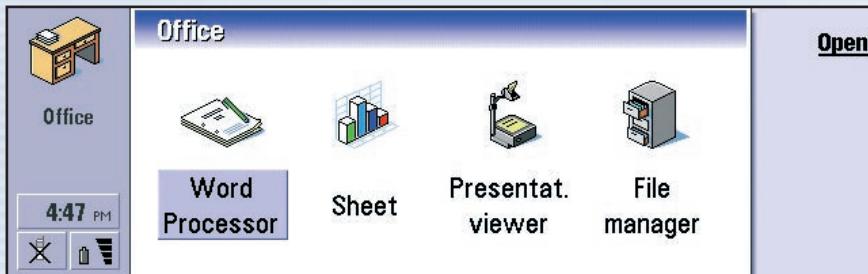
As with the earlier 9210/9290, built-in applications include a calendar/diary,

word processor, spreadsheet, contacts database, PowerPoint presentation viewer, web browser, email client, SMS text messaging and fax support, calculator, world time/alarms, voice recorder, image viewer, video player and various assorted utilities.

Far from being half-hearted attempts at squeezing a few basic PDA applications into this oversized (and admittedly brick-like) mobile phone, you get a word processor complete with spell checker and thesaurus, word count facility, full support for fonts and style sheets, including such subtleties as borders, line and paragraph spacings, embedded objects and a sophisticated print preview system. The spreadsheet sports multi-sheet workbooks with sorting, advanced cell formatting, more than 100 functions, named ranges and some pretty impressive charting options—you get the idea.

Externally, the 9210i is indistinguishable from its predecessor, apart from the use of pale silver rather than dark grey buttons for the phone keypad. With the casing opened it's 9210/9290 all the way, with the same QWERTY keyboard, application buttons, high resolution (640x200 pixel), 4000 colour TFT screen and four 'Command buttons' down the right hand side of the screen. True to Nokia's peculiar way of working, these four buttons are in lieu of a touch screen, being used to select commonly-used functions within each application. Although the keyboard feels more like five rows of calculator buttons, it still offers far faster text input than you could hope for on any keyboardless tablet device, and the biggest frustration when inputting and navigating is ultimately the





An office suite par excellence

rather cumbersome multi-way 'Arrows' key at the bottom right of the unit.

Battery life is robust to say the least, with a single charge keeping the unit going happily for a full day's work, or for several days of intermittent PDA and phone use.

Integration between phone and PDA functionality is delightfully seamless, with selection of a person's contact details bringing up one-touch access to a phone call, email, text message or fax.

And there's no need to close the unit and stop what you're doing when making a call—with the Symbian 6 operating system's effective multi-tasking you can carry on a conversation in speakerphone mode while continuing to write your memoirs or catch up on those sales figures. Sound quality either with the speakerphone or in normal handset mode is crystal clear, with no hint of breakup or distortion, provided the signal level is adequate. Signal strength can be boosted by folding out the small



The big, crisp screen makes PDA functions a pleasure to use

antenna housed in the lid, but this is rarely necessary in practice.

Sadly, aside from the obligatory 900/1800MHz GSM connectivity, the 9210i still supports only the less common HSCSD high speed connection rather than GPRS, which is gaining much more popularity. There's also no sign of Bluetooth, which would have been an obvious addition to such a high-end device. Connectivity to peripherals is thus limited to the standard infrared port or attachment to PC via an RS232 serial cable. It seems absurd in 2002 to be able to purchase a handheld computer that relies on a serial connection rather than USB (or even Firewire), and Nokia surely can't sustain this for much longer.

Desktop connectivity (for Windows PCs only) is via the bundled Symbian EPOC Connect 6 suite, which bears many similarities to Psion's earlier PsiWin software. It lacks much of the seamless integration of Palm OS and Pocket PC connectivity solutions, though it does offer synchronization with most desktop PIMs. Conversion of word processing and spreadsheet files into desktop formats does tend to result in loss of advanced formatting, and even relatively simple things such as heading styles and spreadsheet cell

colours tend to get changed during the conversion process. Such files can of course be emailed directly from the 9210i as attachments, but that tends to disrupt formatting even more, making it a potentially dangerous process to exchange 'rich' documents with others.

These limitations in the connectivity software and the 9210i's internal file convertors really need to be addressed with some urgency. Whereas it's great to have such powerful applications built into the device, the benefit is greatly reduced when it's not possible to exchange complex files reliably with the outside world.

Memory space in the Nokia 9210 was always more of an issue than it ought to be, and that's only partially been addressed with the 9210i. Despite Nokia literature quoting "40MB total memory", that's really not the full story. What you get in reality is 16MB of ROM (housing the operating system), 16MB of internal flash disk (the C drive) for storage of programs and files, plus 8MB of SDRAM 'Execution memory', used for running applications, much like conventional RAM on a desktop computer.



A slightly improved web browsing experience, courtesy of Opera

The earlier 9210 was fitted with 14MB of ROM and the same 8MB of RAM, but only 4MB of internal flash, relying on a 16MB MMC (MultiMedia Card) shipped with the device to provide extra storage space for add-on software. By quadrupling the 4MB flash to 16MB, Nokia has decided to drop the free MMC card from the 9210i package, effectively leaving users with 4MB less of total storage than they would have got with the original 9210. Of course, heavy users will find either 16 or 20MB inadequate for storing all the street maps, dictionaries, e-books and databases they need, and for those the 16MB MMC would soon have been replaced by a much bigger card anyway.

Existing Nokia 9210 users will be only too well aware that 8MB of RAM severely limits the number of applications that can be kept running concurrently, making it necessary to shut down most applications that aren't being used in order to free up working space. In some cases, this memory shortage makes it necessary to perform a quick soft reset (which thankfully doesn't cause any data loss) in order to continue working. The bad news is that Nokia hasn't added memory in order to remove the problem, but the

good news is that memory allocation has been greatly optimised in the 9210i, resulting in almost 2MB of extra RAM being available for running programs. 2MB may not seem like much, but in practice it makes a big difference, with resets far less frequent.

On the software front, the only notable additions to the 9210i are an improved web browser with Macromedia Flash and a RealOne player, plus a VPN Client for improved security when accessing corporate networks. An additional security patch is also available from the Nokia web site, to lock MMC expansion cards to prevent unauthorised access.

The new web browser, actually an un-badged version of the popular multi-platform Opera browser, adds JavaScript support, HTML 4.01 and Cascading Style Sheets. These all help to improve web browsing on the Nokia somewhat, though the comparatively small screen, cumbersome navigation and (for most) slow GSM connections still make for an uninspiring experience.

The RealOne audio/video player is intended to allow streaming audio/video to be fed directly to the 9210i via an Internet connection. Of course, this

is most useful with a fast connection, and given the limited takeup of HSCSD, this feature has little relevance to the average user.

The ability to play back Macromedia Flash 5 animations is a minor enhancement, but nevertheless welcome.

So, as an upgrade to the original 9210, the 9210i won't present enough of a step forward to entice a purchase. Heavy users will look enviously at the prospect of reducing system resets with the extra available RAM, though probably not enough to warrant buying a complete new machine. Original 9210 customers will understandably bemoan Nokia's decision not to offer any kind of upgrade path to the 'i' version, and given the unreasonably small amount of free RAM in the old 9210 it seems harsh for Nokia to take such a stance.

Shortcomings aside, the 9210i is by and large an immensely impressive device. The PDA functions are all a pleasure to use, and there's a really solid and ever-increasing amount of good third party software available for it, including such things as project planners, e-book readers, sophisticated database programs, dictionaries, TomeRaider, a superb PDF reader, dictaphone software, games, and so on.

Navigation without a touch screen may sound tedious, but for most applications it's easy to get used to Nokia's slightly different way of working, and the absence of a touch-sensitive layer on the screen makes for perhaps the very brightest and sharpest display of any PDA on the market today.

Given that software availability is such an important part of any computer system, in this respect 9210/9290/9210i customers are unlikely to be disappointed. With the screen being relatively big by PDA standards, and despite its rather 'stretched' aspect ratio, the Nokia is particularly well suited to work such as word processing, PDF viewing, e-book reading, emailing, etc.

If the successor to the 9210i would increase the internal RAM by a factor of at least two and add GPRS support, together with improved desktop file compatibility, these devices will become true world-beaters. In the meantime, even with their few annoyances, they're still serious contenders for those in need of a top-end communicator.

Steve Clack

Nokia 9210i

From: Major Nokia dealers (Europe/Africa/Asia)

Contact: www.nokia.com

Price: Around £600 with contract (TBC).

Quality: 

Value: 

Want to know more?

If you'd like to know more about the Nokia 9210 series, read our extended review and 'The 9210 survival kit' on our web site - at www.palmtop.co.uk.

Nokia 7650

This could be the start of something big. We've already seen the convergence of PDAs and mobile phones in the form of the 'communicator', and Nokia has gone one better by merging in a digital camera as well, throwing in GPRS, Bluetooth and MMS for good measure. A little taller, wider and deeper than many other contemporary mobiles, the Nokia 7650 is the most feature-packed smartphone around.

Although powered officially by Symbian OS v6.2, the interface and main applications are all Nokia's, who refer to the system as Series 60. The 7650 has (MIDP) Java support, 4MB of onboard

memory (with no expansion slot), and a small, 176 x 208 pixel, 34 x 40mm (1.34" x 1.57") colour screen.

As a phone, the 7650 behaves very well, representative of the quality we've come to expect from Nokia. It's a dual-band (900/1800) device that supports high-speed data (HSCSD, up to 43.2kbps) and speeds of up to 40.2kbs over a GPRS network, with voice-dialling and integral hands-free speaker operation. The Li-Ion battery is quoted at two to four hours of talk time, with a standby time of between 100 and 150 hours.

The first thing you'll notice is the apparent lack of a numeric keypad, but don't be fooled into thinking that the 7650 is touch screen-driven—there's a slide-out keypad that also doubles as a lens protector for the camera (of which more later). It's possible to answer voice calls with the keypad in or out, and when closed you're given the option to lock the front panel buttons to prevent accidental pressing. With the keypad retracted, the height is around 115mm (4.5"), or 160mm (6.3") when expanded. Width and depth are 56mm (2.2") and 26mm (1.0") respectively, and the 7650 weighs 154g (5.4oz) with its battery.

The phone is comfortable to hold, although the camera lens isn't inset in any way, which tends to result in a little fingerprint smearing when the case is opened. The numeric keypad is quite responsive, although most navigation is done with the small black joystick below the screen. This allows four-way navigation, with a press-in to select. There are two hardware buttons immediately below the screen, whose functions change depending on which application



you're using. There are also dedicated menu, voice-record and on/off buttons. On the numeric keypad, there's also an 'ABC' button, which allows selection of T9 text recognition and some other general text options, such as 'Insert word' and 'Insert symbol'.

In terms of software, the Series 60 applications are somewhat simpler than on previous devices using the Symbian operating system. There's no Word, PowerPoint, Sheet, or even a web browser (although a WAP 1.2.1 secure browser is included), and because the files and folders are tucked away and never shown to the user, there's no need for a file manager. With such a tiny screen and with minimal text entry capabilities, these omissions are quite understandable.

Unlike the old Ericsson R380 series, also based on Symbian OS, the 7650 is fully extensible, and we're already seeing the

first third party software titles becoming available.

The single unique feature of this 'phone' is, of course, the camera. With a fairly empty memory, the Nokia 7650 can hold around 60 high-resolution 640x480 images. You can switch image quality between High, Normal and Basic, to squeeze more photos into memory, and there's a fairly basic 'night mode' that can help with low-light image taking.

When in camera mode, the screen becomes your viewfinder. Pressing in the joystick takes the picture, with a 'click' sound effect to confirm that the snap has been taken. Oddly, the 'click' is heard slightly before the photo is actually taken, which can ruin the snap if your subject moves during the subsequent half-second delay. Photo quality



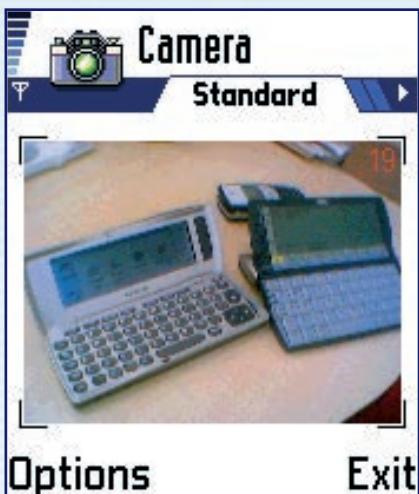
The Nokia 7650's main menu



itself isn't great, but it's certainly good enough to be useful when out on the town for the night, or when snapping pictures of family and friends to add to your Contacts address book.



Browsing photos with the Images application



Camera preview mode



Photos taken using the camera (or images transferred to the 7650 by other means) can also be viewed, navigating through a thumbnail list of images and selecting the one to open. Once displayed, images can be rotated and zoomed, as well as displayed full-screen. Pictures can subsequently be renamed, deleted or moved into user-created folders. There is an 'Image uploader' menu command, which appears to allow pictures to be uploaded to web space somewhere on the Internet, presumably a service that will be offered to Club Nokia members in the future.

The Contacts application is fairly central to the 7650's operation. Essentially, it's an alphabetical list of your contacts, complete with optional thumbnail picture of each, so that their picture appears when they call you. You can



A Contact card

also add a large full-screen picture to a Contacts entry, send a copy of a contact card via email, text message, Bluetooth or infrared, and set a specific ring tone for calls from each particular contact. Contacts is typically used to initiate



Messaging's main view

calls and text messages, as opposed to selecting a contact from, say, the Messaging application.

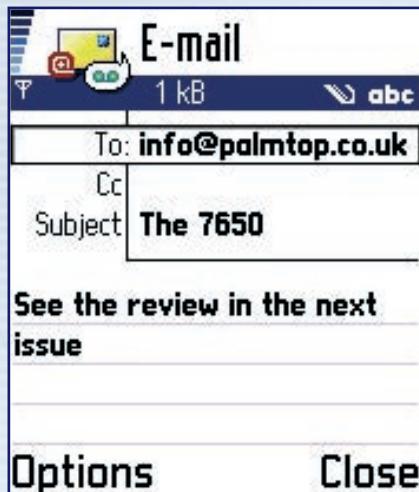
Messaging is also very important in the 7650, for many people it will be the



Selecting a message type



An incoming voice call...



Creating an email message

nerve centre of the device, and there are no serious surprises here. Messages and beamed files appear in the Inbox, while standard email appears in a folder specific to each of your POP or IMAP mailboxes. The standard 'Sent' and 'Drafts' folders are also here and, although new email account creation is a little fiddly, it's all fairly intuitive.

Message composition is straightforward. For SMS text messages, an on-screen counter appears in the status area, letting you know how many characters you've entered so far and how many SMS messages will be required to transmit them. For email, there's attachment support, though only for images, sounds and notes (i.e. you can't select a file from a folder in the traditional way). There's also no 'BCC' field.

New for the 7650 is support for Multi-media Messaging (MMS), which the 7650 form factor lends itself to perfectly. You can attach photos you've just taken,



Browsing the contents of an email folder

add text and sound, then send it off to another MMS-capable phone or to an email address. MMS is just beginning to see the light of day, with operators slowly adding services and tariffs to their portfolio. Per-MMS pricing seems



Composing an MMS message

Travel News

At 11:14 03/07

- (Problems On Central (1)
- Circle (1)
- District (1)
- Metropolitan (1)
-) No Problems On Bakerloo
- Fast London

Options Back

WAP in action

a little vague at the moment, with UK prices expected to be around £0.50, as opposed to £0.10 for a standard SMS text message. The industry is being a little cautious on its predictions for the take-up of MMS, especially with the

To-do note

ABC

Subject: Confirm reunion

Due date: 12/07/2002

Priority: Normal

Options Done

Minimalist To-do entries

next generation of mobile phones (3G) around the corner, but mobile-to-mobile picture sending certainly has potential.

The Calendar application has three main views: Day, Week and Month, and

July

12/07/2002

Mo	Tu	We	Th	Fr	Sa	Su
27	1	2	3	4	5	6
28	7	8	9	10	11	12
29	15	16	17	18	19	20
30	22	23	24	25	26	27
31	29	30	31	1	2	3
32	5	6	7	8	9	10

Options Back

Calendar's month view

Monday

08/07/2002

8AM	
9AM	
10AM	Conference c...
11AM	
12PM	
1PM	Lunch with Da...
2PM	
3PM	

Options Exit

Editing a Calendar entry



Recording a sound clip

allows entry of meetings, memos and anniversaries, with alarms as required. Calendar really needs some additional screen real-estate, as it's only possible to see a handful of appointments at a time, but even so it should be perfectly adequate for most people. The To-do application is a little more Spartan, with only three fields: Subject, Due date and Priority—clearly not designed as a project management tool.

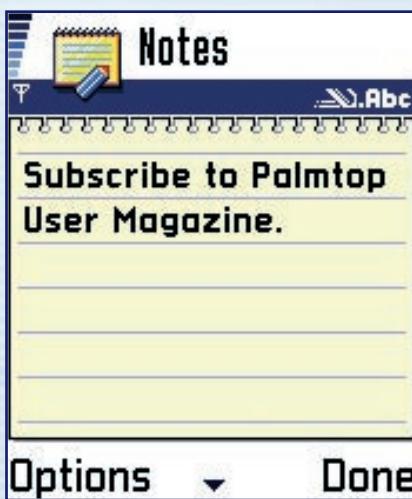
The 7650 also comes with a Notes application for basic no-frills text entry, a voice recorder, currency convertor, calculator, clock, call log and a ring tone composer. Two games are built-in: Snake Ex (a version of Nokia's mobile phone snake that allows you to compete over Bluetooth) and Mix Pix, a fairly unimpressive implementation of a standard sliding tile puzzle. Additional games are supplied on the CD (including Bounce and TriplePop, as found on the Nokia 9210), and there'll doubtless be

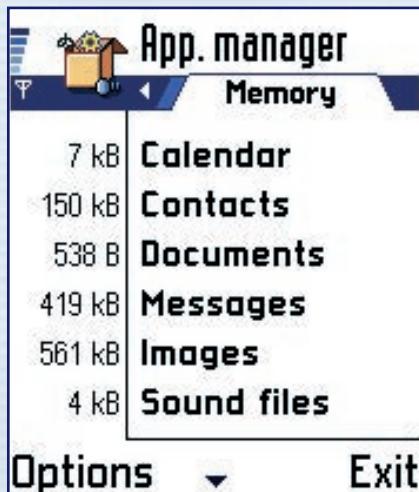


Searching for Bluetooth devices

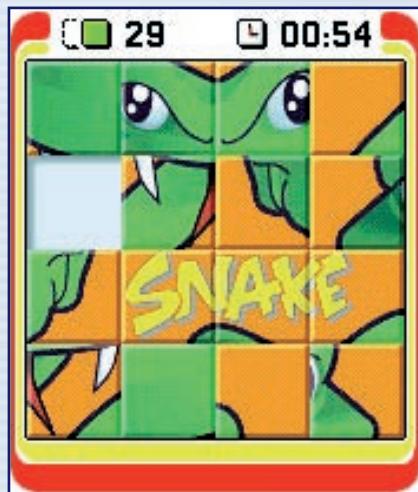
a flood of third party games appearing within a matter of weeks.

A PC (only) connectivity solution will be available on CD as well as from the Nokia web site (a 27MB download),





Nokia 7650 memory management



The Mix Pix game



presumably allowing backup, desktop synchronization and program installation, although this wasn't available at the time of going to press.

Screen size limitations aside, looking for major negatives is tricky. The user interface occasionally throws up a few surprises—menu commands sometimes vanish, depending on which mode you're in, and some of the more obscure settings aren't quite where you'd expect them to be. For instance, it's not possible to reply to a message from the Messaging list view—instead you have to open the message first. In general though, navigation is good and the phone's a real pleasure to use.

Although 4MB of memory is quite impressive for a phone, it's somewhat 'light' for either a PDA or a digital camera. With no ability to expand the memory, the loading of games and other third party applications will have to be offset against the number of pictures you want to store and, of course, the memory needed for all your contacts, notes and appointments.

Clearly marketed for gadget-fans who like the latest technology, the Nokia

7650 is likely to be a hit. To achieve mass-market popularity though, the price will have to come down considerably. As we went to press, a SIM-free Nokia 7650 is priced at around £700 including VAT, which is almost unheard of for a mobile phone. If you're looking for a new mobile and contract anyway, the 7650 works out to around £450 including VAT, which makes rather more sense.

Pete Sipple

Nokia 7650

From: All major Nokia dealers

Contact: www.nokia.com

Price: £700/£450 inc. VAT approx. (see text)

Quality:



Value:



Nokia 7650 screenshots
were made possible by using
'Screenshot Capture'.
For more details, contact
info@cognitive-i.com

PocketGear 2060

This first Pocket PC offering from Packard Bell appeared in the UK in May, although the machine is now becoming available elsewhere in Europe, branded as the NEC MobilePro 300E.

With an Intel 206MHz StrongARM processor and 64MB of RAM onboard, the speed and processing power is on a par with Compaq's popular iPAQ H3800 series. Measuring 125 x 77 x 15mm (4.9 x 3.0 x 0.6") and weighing 146g (5.1oz) with battery, the PocketGear is smaller, and more than 50g (almost 2oz) lighter than the Compaq.

The metallic blue and silver casing gives the PocketGear a distinctive look, and its size and shape makes for a comfortable hold. The short and stumpy stylus tucked into the right-hand side initially raises an eyebrow, but telescopes out to be long enough to be useful, although it's still not as long (and thus convenient) as some other PDA styli.



The PocketGear 2060 runs Microsoft's Pocket PC 2002 operating system (as discussed on page 83), and navigation is greatly helped by the addition of a 'jog dial' on the top left-hand edge of the unit, similar to those found on Sony's Palm OS PDAs. This rotary control allows for up/down scrolling of content, with a single push-in motion to make a selection. The jog dial is a useful navigational aid which helps enormously when scrolling through pages of offline AvantGo web content or scrolling and selecting emails from Inbox.

As with other Pocket PCs, there are four customisable application buttons, a five-way navigation key (which is slightly less precise than the iPAQ's). Additionally, there's a small record button on the left-hand edge that allows fast 'dictaphone' recording into the Notes application via the built-in microphone, plus a recessed reset button. On the top edge of the unit there's the on/off button, stereo headphone jack, infrared port and a slot for memory expansion via Secure Digital (SD) cards. There are two coloured LEDs to indicate charge and alert notification, and the front of the device has a small (and slightly tinny) speaker. On the back of the unit there's a covered expansion slot for attachment of a PC card/CF reader and any other peripherals that appear over the coming months. A separate power socket and cradle docking slot at the base of the unit provide the usual power and data connections.

With a standard Pocket PC 2002 resolution of 320x240 pixels and supporting 65,000 colours, the front-lit reflective display screen is crisp and clear in just about any lighting conditions, and the



software allows for the brightness to be changed to suit the ambient light level or to conserve power. The PocketGear 2060 is powered by a Lithium-Ion battery, and the specifications quote a charge interval of greater than eight hours.

The unit is supplied with a USB docking cradle (which lights up when docked, illuminating a dark room with a rather bright blue glow), AC Adaptor and a CD containing the ActiveSync 3.5 PC connectivity software, Microsoft Outlook 2002 and a few other Pocket PC software goodies, including iGolf, AOL Instant Messenger, Acrobat Reader and MGI PhotoSuite.

Being the first of a new marque, it's worth pointing out that the number of accessories for the PocketGear is limited at present. The Packard Bell web site currently lists a serial (RS232) docking station, Rocketeer PC Card battery pack, Rocketeer Compact Flash, carry case, spare battery and a car adaptor, although at the time of writing, these don't appear to be available from Packard Bell's recommended UK accessories supplier, Partmaster. There's no information on upcoming Bluetooth or GPS navigation expansion options as yet, which might make the iPAQ range just that little bit more appealing to gadget fans.

Packard Bell's initial Pocket PC offering looks good, works well and is hard to fault, even if the stylus is just slightly too short for my liking.

Pete Sipple

PocketGear 2060

From: All major Packard Bell/NEC dealers

Contact: www.packardbell.co.uk

Price: £379 inc. VAT

Quality:



Value:



Fossil Wrist PDA

One day all PDAs will look like this—well, almost. Apart from the rather horrible 'joystick' rocker and stiff button action, the Fossil Wrist PDA is a sleek and well designed piece of gadgetry, with moulded contours and a strong integral plastic strap. If turning it on had revealed a futuristic colour interface with built-in mobile phone, video imaging of callers and voice control, the bulky form factor would be justified and Fossil would be selling it in prodigious quantities.

Science fiction aside, the Wrist PDA turns out to be an underpowered, monochrome, read-only and memory-crippled mirror of your existing Palm OS handheld's 'big four' applications: Date Book (calendar/agenda), Address Book,

To Do List and Memo Pad. In itself this would still be a handy facility, but in practice the system is just too slow to be useful—it's much faster and a lot more pleasant to take your handheld out of its case, turn it on and use that instead.

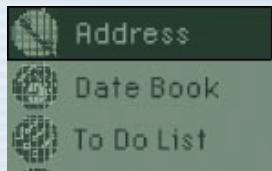
Synchronization is limited to just 192K of data in total, with other limits on specific programs. For example, Fossil recommends that you keep no more than 5K of data in your Date Book. However, there's no Find function (or indeed any other way of inputting text of any kind), so scrolling through hundreds of entries using the joystick, one by one, is not really practical anyway. The processor in the watch is also very slow: opening up my Date Book or simply scrolling to a previous day took a completely impractical 10 seconds each time.

The interface is fairly well crafted, with two primary buttons plus the joystick. The buttons represent 'Home' and 'Back/toggle', while pressing the joystick's centre activates 'Enter'. The system should be easy enough to use, but things are ruined by the stiff and unresponsive action of all the buttons and the sometimes slow software.

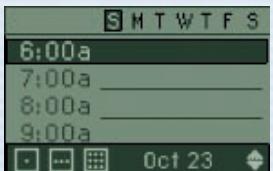
Power is supplied by two CR2032 button cells, which are quite easy to obtain. The time between battery changes is measured in weeks and even months, with all data stored in flash memory to ensure that it persists during battery changes.

There are some neat touches, such as the way the 40K Wrist PDA synchronization driver can be beamed directly from the watch to your handheld with no involvement at the desktop level at all, and the way application data can be intelligently

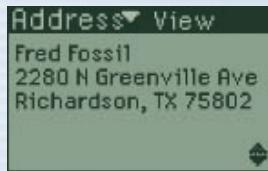




Selecting an 'application'



The Date Book calendar



An Address Book entry

pruned down (by selecting categories to be beamed) prior to synchronization.

The concept of the Wrist PDA is ultimately flawed though, being sufficiently limited that you'll also need your regular Palm OS handheld around most of the time. And you really don't want to be endlessly silencing alarms on both devices or changing settings several times a day. A true PDA has to be just that, a Personal Digital Assistant—having more than one of the blessed things working with the same entries and you'll end up babysitting the technology more than you will getting on with your life.

Being water resistant to a depth of 30 metres gives a clue as to a possible use for the Wrist PDA. Given that water and handheld computers don't normally mix at all, this might be the only way to take your Address Book and Memo Pad notes down to the beach or swimming pool with complete peace of mind. The question is though, how many people find the need to take PDA usage quite *that* far?

This niche apart, Fossil's designers are ahead of their time here and miniaturisation technology is not yet advanced enough to do justice to the concept. To be truly useful, a wrist-mounted device will have to do a lot more than this and will also have to do it much faster.

A Pocket PC-compatible version of the Wrist PDA is slated for launch later this year.

Anne Johnstone



Fossil Wrist PDA

From: Fossil

Contact: www.fossil.com

Price: £150 inc. VAT

Quality:



Value:



iContacts

version 1.9

Arguably three years late, iContacts is what the standard Contacts application on the Psion 5mx and Revo range should have been. Using almost exactly the same core Contacts database and thereby preserving any existing links or synchronizations to applications on the desktop, SymbianWare has managed to create an application that is far more useful.

I use the word 'almost' above because in its own files, iContacts only stores information that cannot be contained within the standard Contacts database, ensuring that compatibility between the two programs is preserved as far as possible. In practice, you'd simply use iContacts instead of Contacts from the program icon (SymbianWare supplies a small utility for this purpose), never needing the original program at all. The main innovation of iContacts is the use of contact folders, allowing names, addresses and contact details to be filed according to category (e.g. 'Work', 'Friends', 'Golf club', etc.) Within each folder you can also have unlimited sub-folders (e.g. under 'Work' you might have 'Sales', 'Marketing', etc.)

Setting up new folders is trivially easy, and filing away each of your contacts

is quickened with a 'Multi-select' mode. Just tick the entries required to be grouped together and use the 'Move iContacts' menu command, specifying the destination folder. You can even have contacts in more than one folder, although there's no automatic link between these 'duplicates', potentially leading to confusion.

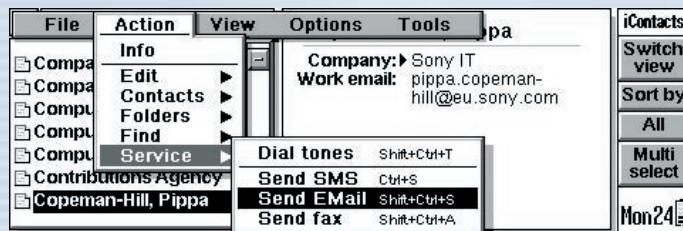
In addition to a standard 'Card' view, iContacts offers a list-style browser and special views for phone numbers, mobiles, faxes, emails, URLs, anniversaries and an anniversary browser, in each case filtering out all inappropriate (empty) entries. Unfortunately, these other views lack the speed of the Card view, in some cases taking up to five seconds to filter through and display my fairly meagre 130 test entries. With a sizeable contact database, these views will probably take too long to compile to be worthwhile.

The anniversary browser is good to see though, with an option to export all birthdays to your main Agenda file, where they appear properly formatted and filled in. The original Psion Contacts application included a birthday field, but then did nothing with it. Similarly for mobile (SMS) and email fields, which the original would merely display in the Card view. iContacts includes menu commands to launch the Email applica-





The anniversary browser in action



About to compose an email to an iContact

tion in the right mode, pre-entering the recipient information for you. I would have liked to be able to simply tap on the SMS number or email address to start the service—doing so in iContacts opens up the full entry for editing instead, which seems rather unintuitive.

There are comprehensive Find options, including a 'Wizard!' which, contrary to modern conventions, is actually an advanced query system for expert users. A huge tabbed dialog lets you alter just about every on-screen font in the program to suit your own eyesight and preferences.

Finally, there's a novel (and genuinely useful) Help system which (optionally) pops up before each menu command is actually actioned, explaining what's about to happen and giving you the chance to back out if it wasn't what you intended. As you get to grips with each command, these pop up help screens can be disabled one-by-one. The only disadvantage of this system is that you

can't easily read through the documentation in sequence on your palmtop—the main iContacts manual is supplied on the SymbianWare web site in both hypertext and printable forms.

A significant improvement on the standard Psion Contacts application, it's only a pity that iContacts has taken so long to appear for a platform now in its twilight years. Even so, it will still be welcome for the many people for whom the Psion palmtop range is still the centre of their mobile office.

Steve Litchfield

iContacts

From: SymbianWare

Contact: www.symbianware.com

Price: \$20

Quality:



Value:



DualDate

version 1.0

Launched recently with remarkably little publicity was Palm's own (free) solution for the age old problem of keeping your Palm OS Date Book (calendar) in step with your partner's. Palm uses the word 'synchronizing', but the utility isn't quite that clever...

DualDate is a replacement for Date Book, with extra display modes for showing a second, read-only set of entries alongside your originals. I suspect that the Day view will be the most useful, although all other Date Book views are also available in similar 'dual' mode, effectively raising the number of views that you can cycle through to eight. The view icons at the bottom of the screen are subtly modified when viewing one of the dual displays.

Sharing your calendar is done through a menu command, beaming it as a DualDate database to your partner. In return, they can elect to beam their calendar back to you, completing the cycle.



The main DualDate 'cascaded' Day view

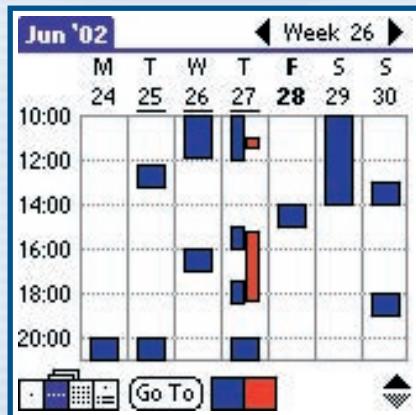
There's no danger of duplicate entries showing up, as the second calendar in each of your DualDate systems is always completely replaced. Preparing and beaming even a modest Date Book isn't quick—mine took a disappointing 17 seconds. But then I doubt that DualDate beaming would be a daily occurrence, even in a high-tech household. Calendar sharing would probably fit in best as a weekly catch-up exercise.

Despite its surprising 163K of bulk, DualDate is a fairly simple application. If a third person comes along and wants to share calendars with you, their entries totally overwrite your partner's. In situations where more than two people are regularly involved, something like the Internet-based WeSync.com (www.wesync.com) system or the category-supporting DateBk4/5 (www.pimlicosoftware.com) would be more appropriate.

Within the context of two people staying informed about each other's schedules, DualDate is very sensibly implemented.



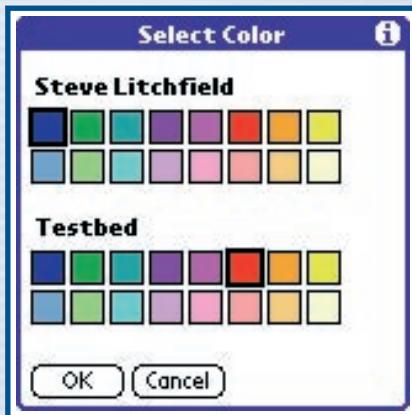
About to beam my Date Book...



The Week view, perhaps more useful in DualDate than in Date Book

When beaming a calendar, the default is to send only current and future entries (for speed reasons) and not to send over private entries at all. If you do transmit your private appointments then they appear masked out on your partner's DualDate display (i.e. they can see you're busy, but not what you're doing). Alarms are stripped off the beamed entries so that your partner doesn't get unnecessarily bothered, and the standard Date Book databases are used throughout, which avoids breaking any conduits or other enhancements you might have set up. Each person's Palm Desktop views are, of course, left untouched.

A forced reset after installation leaves DualDate assigned to the Date Book button, a mapping which may force a rethink for anyone with that button already reassigned (e.g. on a Handspring Visor or Treo). There are a few other peculiarities, such as the Palm OS Find function locating matching entries in both Date Book and DualDate, and individually-beamed events being



Picking colours for the DualDate Week view

received into the original Date Book, with DualDate catching up next time it's launched.

Another potential problem for busy users is that the dual Day view is necessarily much longer vertically than the standard single-user view, so any regular DualDate users will become good friends with the fiddly on-screen scroll buttons.

In its slightly simplistic way, DualDate accomplishes what it sets out to do, and will find a home in many Palm-equipped households.

Steve Litchfield

DualDate

From: Palm

Contact: www.palm.com/support/dualdate

Price: FREE

Quality:



Value:

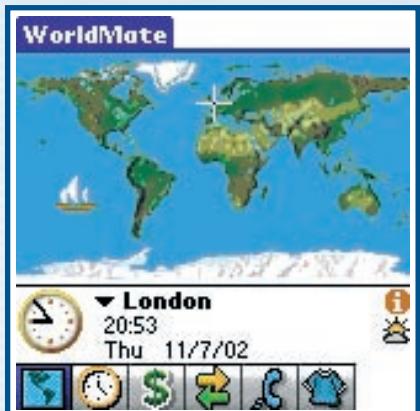
N/A (FREE)

WorldMate

version 8.2 / 1.1

A good friend of mine recently upgraded from an old Psion Series 3 to a Palm m130 and now takes great delight in chipping into conversations with appropriate AvantGo-provided weather forecasts. WorldMate has similar possibilities, rolling in a multitude of genuinely useful international time and data functions, and with the option of instant, wireless updates wherever you happen to be.

Available for both Palm OS and Pocket PC, WorldMate organises its various functions with an icon bar along the bottom of the screen. Taking a whistle-stop tour along the bar, first up is the world view, with an attractive map of the world and pick-list for selection of a city name. As you might expect, tapping on the map will also produce a result, snapping to the nearest city in the database and showing its time. You can add your own cities, although you'll need to enter their latitude and longitude manually if you want them to appear on the map.



The small but perfectly formed world view

Tapping on the 'Information' icon merely brings up the city editing dialog, which is a slight disappointment as I was hoping for information on local language, currency, population, customs, etc. However, WorldMate redeems itself when you tap on the 'Weather' icon, with a five day weather forecast for every city in the database (currently over 250 in the Palm OS version and 75 for Pocket PC). Updating of this information is intelligently implemented, with the option of either letting the supplied (PC only) WorldMate synchronization conduit handle things (this is the default) or wirelessly updating using the handheld's own Internet connection. In these days of wireless Internet (e.g. the Treo communicators, Palm i705, O² XDA or indeed any Bluetooth-connected handheld), having the option of removing the desktop from the equation is to be highly commended.

The forecasts themselves are sourced from either The Weather Channel (Palm OS version) or AccuWeather (Pocket PC) and are very brief. There



Not much of a summer...



The graphical world view on a Pocket PC...

are only descriptions (e.g. 'Partly cloudy', 'Scattered showers', 'Sunny', etc.) and associated icons, plus predicted high and low temperature (in °C or °F) for each day, but this is still handy for planning an outing. It's also fascinating to browse round the world, seeing who's having the best weather!

The second area in WorldMate is a fairly traditional world clock, showing up to five cities of your choice at a time. A companion screen ('Time Calc') shows similar information for a selected time zone, which is handy for planning a journey or a set of business calls.

A 'Radiation' icon on the world clock display (on the Palm OS version only) kicks off a wireless synchronization with five separate atomic clocks on the Internet. For many of us, our handheld is the centre of our mobile office and



...and a typical five day forecast

it's important to get the time right—in my case, I found my Palm handheld was previously a full two minutes out.

Weapon number three in WorldMate's armoury is a three-way currency convertor, with pick-lists to select each country/currency. You can even total up to three amounts in a foreign currency, with the program showing their equivalents, line by line. Again, there are options to wirelessly update the exchange rates directly on the Internet, or to rely on the WorldMate synchronization conduit.

The remaining three icons lead to a units convertor, a country telephone prefix list and a set of international clothes/shoe size tables. These are handy to have in one place, though unremarkable in operation.

WorldMate **Clocks** **Time Calc**

When it is 21:25 **Now**

In ▼ London

What is the time in...

- ▼ Tokyo 05:25 Day After
- ▼ New York NY 16:25 Same Day
- ▼ London 21:25 Same Day
- ▼ Paris 22:25 Same Day

The World Time Calculator

I'm a great believer in keeping the synchronization process as simple as possible, which is why I welcome MobiMate's use of a direct Internet connection on the handheld. Once the dial-up connection had been established, updating the entire worldwide weather database took just over 35 seconds, updating the currency exchange rates took a further 17 seconds, and the atomic time synchronization took just

WorldMate

▼ EUR	▼ GBP	▼ USD
◆ 50	31.895	49.180
2.630	1.677	2.586
Ttl 52.630	33.572	51.766

1 ▼ EUR = **0.637** GBP
0.983 USD

Get Updated Rates **Convert** **Clear**

Working with the currency converter

10—all with a meagre 9600bps GSM phone connection. Considering what's being achieved here, these times are quite impressive.

Although most functions of WorldMate are available elsewhere, to match its abilities you'd have to install half a dozen different packages and synchronization conduits. WorldMate not only rolls everything into a single, attractive interface, it's intelligently implemented and to my mind is good value for money.

Anne Johnstone

WorldMate **Clocks** **Time Calc** ⓘ

21:26:59
11/7/02 Thu
▼ London

Atomic Time Sync

Sync time with an atomic clock now?

Last Sync: 11/7/02.

Get Time **Servers...** **Cancel**

About to synchronize atomic clocks

WorldMate

From: MobiMate

Contact: www.mobimate.com

Price: \$20

Quality:

Value:

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 ASTRAWARE

The GAME ZONE

The hottest new games on the handheld scene...

All of these games are either new or have been significantly upgraded recently. Although colour screenshots are shown where possible, most games also work in monochrome.

COLONIZATION OF MARS (Palm OS)

With a sci-fi back-story and appearance that could be lifted straight out of Babylon 5, **Webvisia's** Colonization of Mars puts you in charge of a colony, fighting against parasitic life forms that take over the minds of your people (and therefore their vehicles). The constant on-screen animation and depth of gameplay impress, although trying to fit everything on the tiny Palm screen will severely test your eyesight and stylus skills. \$15, from www.webvisia.com.



HOT PIPES (Palm OS)

Based on Pipemania, one of the all time classic puzzle/arcade hybrids, **TB Labs'** Hot Pipes sees you frantically finding places for pipe shapes coming off the production line before the water starts flowing and spilling out through the open pipe end. And, just as in the original, the pieces you need remain frustratingly elusive. Skillful players will make it onto harder levels with longer pipe sections needed and faster water flow. Also available for 320x320 resolution screens. \$10, from www.palm-games.com.

BILLIARDS (Palm OS)

From the prolific folks at **Megasoft2000** comes this new, super-slick implementation, with built-in rules and layouts for 8 and 9 ball pool, plus Pyramid (where you can pot any ball with any other). The action is slick and just about sustainable on the standard Palm OS display. The cueing interface is particularly well done, with easy spin selection, cueing elevation and fine tuning buttons for direction of stroke. \$20, from www.megasoft2000.com.



CHESS GENIUS (Palm OS / Pocket PC)

Chess has never been this much fun. Well, maybe fun's putting it a little strongly, but Chess Genius from **Lang Software Ltd** does its best to be educational, occasionally exciting and useful. Every feature you've ever wanted in a chess game is here, from a mountain of skill levels and playing options to clocks, infrared play and compatibility with desktop chess systems. And as it's based on a recognised top chess 'engine', it plays a very strong game too. My favourite feature was the 'tutor' that pops up if you make a really bad move and offers the chance to take the piece back! Also available for Pocket PC. \$25, from www.chessgenius.com.



LEMMINGS (Palm OS)

Licensing disputes over the name mean that **Ardiri**'s Lemmings is labelled as a free 'demonstration' version, with extra 'level packs' for purchase at \$12.50 each. The upshot though is a perfectly playable port of the classic Lemmings strategy/arcade game, in which you designate specific Lemmings to certain tasks (even in extreme cases to blow themselves up) in order to save as many of their ever-trotting friends as possible. The graphics are colourful and great fun, even if they are on the tiny side of minuscule. From www.ardiri.com.

ABYSMA (Palm OS)

An original and eminently playable new title from the ever-prolific **Astraware**, Abysma presents you with a square grid that's almost completely filled with coloured shapes. As each round starts, a horizontal bar slowly drops down from the top of the screen, and it's your job to drag the shapes around to prevent the bar from passing directly over any blank spaces in the grid. Needless to say, the action gets ever more frantic as the levels progress. \$15, from www.astraware.com or \$25 bundled with Elixir (see below).



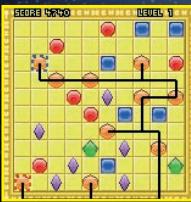
ELIXIR (Palm OS)

Astraware's Elixir is rather like the ancient parlour game of Jenga, where the object is to remove wooden blocks (or in this case, little coloured 'pills') from the bottom of the stacked pile, without causing the supported ones above them to topple. Plenty of tension, sound effects and a simple 'Tap to smash' interface help to keep the interest level up for game after game. \$15, from www.astraware.com or \$25 bundled with Abysma (see above).



GLINX (Palm OS)

Another brain-bender from **Astraware**, the object of Glinx is to link matching pieces on the grid into a chain, each time by taking no more than two turns. Tap on the last object in the chain to make the string of pieces disappear, and continue until you've cleared the level. There's plenty of strategy involved, with both timed and untimed games, plus several special pieces and bonus multipliers to watch out for. \$15, from www.astraware.com.



PACMAN (Palm OS)

A fairly faithful conversion of the classic coin-op, **Horace Ho's** PacMan is simply programmed but fun. You'll probably be familiar with the concept—guide PacMan around a series of mazes, munching dots and power pills and trying to avoid (or eat) the ghosts. The hardware buttons or stylus can both be used for direction control of your little character, although neither is sufficient to properly emulate the original's joystick. \$10, from www.palmgear.com.

SCRABBLE (Palm OS)

One of the very best leisure titles for Palm OS just got even better, with **Handmark**'s Scrabble version 1.1. This faithful reproduction of the classic word game now includes support for high resolution 320x320 screens and a full dictionary of word definitions to help build your vocabulary. It's now even possible to play against another opponent via Bluetooth or infrared. \$30, from www.handmark.com. (Currently licensed for use in USA/Canada only).



3D STAR FIGHTER PILOT (Palm OS / Pocket PC)

A fairly predictable but nonetheless attractive and enjoyable shoot-em-up, 3D Star Fighter Pilot from **3DA Games** looks rather like Elite at first glance, but forgoes the strategy element in favour of pure alien-blasting fun. Spin your ship around, accelerate, decelerate and fire, all the time keeping an eye on the tactical 'radar' display at the bottom of the screen that shows you where the baddies are. Easy to play, fast, furious and colourful, with 21 unique forms of opponent and seven difficulty levels. Also available for Pocket PC. \$14.50, from www.3dagames.com.

ICBM II (Pocket PC)

Another classic 80's arcade game brought back to life, this time on the Pocket PC. Defend your cities from overhead bombardment from Inter-Continental Ballistic Missiles in **Geoff Macdonald's** Missile Command clone. The first couple of levels are a little slow, but the action speeds up as you go along. Pick up resources such as extra cities and laser recharges by zapping the occasional fast-moving target. Good sounds, enjoyable play, and a lot easier to navigate than the old arcade rollerball! \$5, from www.geoff.org.uk.



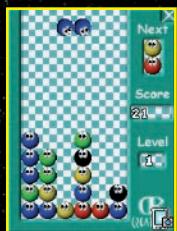
AIRHOCKEY 3D (Palm OS / Pocket PC)

A little less strenuous than the full-sized table equivalent, **Ellams Software's** airhockey simulation offers 12 levels and you can play against a real live foe if they have an infrared Pocket PC too. Another neat touch is a 'block break' game option, whereby you use the puck to break down a wall. Gameplay does tend to be a little jerky, and would certainly welcome a better 'goal' sound effect than the rather cheesy buzzer, but it's still an addictive game.

Also available for Palm OS. \$8, from www.ellams.force9.co.uk.

DRAGON BANE II (Palm OS / Pocket PC)

Mythological Software's visual feast for Palm OS is now available for Pocket PC. Interact with your Caleb Knight, moving though a 3-D world in this complex role-playing game. In true Dungeons & Dragons style, fight monsters, meet new characters, find weapons and use spells to keep your Hit Points at a safe level. Incredibly detailed, this will keep RPG players engrossed for weeks. Third parties can develop new levels using the Dragon Bane engine. Superbly elaborate and very impressive. \$27, www.mythological.com.



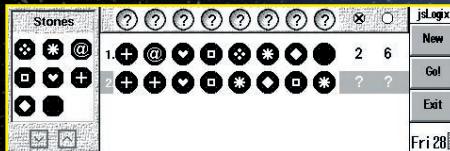
PARTICLE PANIC (Pocket PC)

With origins in the Tetris camp, this game from **Dr Creations** has all the addictive qualities of Tetris, but with a few twists. Pairs of 'atoms' drop from on high (with little blinking eyes), and you can rotate them into position. Match four colours and the chemical reaction causes the atoms to explode. Rogue atoms appear now and then to affect your strategy. Navigation and rotation are controlled by tapping the screen in key areas, and this isn't quite as accurate or intuitive as expected. When the play speeds up, it's quite easy to confuse 'go left' with 'rotate', but that just adds to the addictiveness. A nice twist to a classic game. \$6, from www.dcreations.net.

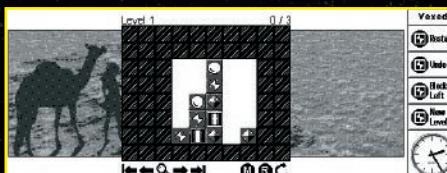


JSLOGIX (Psion)

Jakub Smolik has taken the classic Mastermind logic game and added an extra level of difficulty with up to eight symbols/pictures/shapes (you get to choose) and up to eight positions to deduce. You can also customise the rules and set simple sound effects if you wish. The result will stretch even the most logical mind, and runs on all recent Psion models, and in colour on the Series 7/netBook. \$12, from www.jsolutions.cz.



VEXED (Psion)



Another thoroughly engrossing (and free) puzzle game from **FreEPOC**, the object of Vexed is to slide the blocks left or right across the screen to form rows of at least two with identical patterns, thus making them disappear.

Gravity plays its part as you push the blocks over the edge of vertical drops in order to build the winning lines, making for a highly entertaining brain teaser for your Psion. The 60 built-in levels can be extended with further Level Packs. Free, from www.freepoc.org.

MAHJONG (Nokia)

The first port of this popular oriental game to the Nokia 9210/9290, **m-internet**'s Mahjong offers gameplay in English, Chinese and Japanese, with traditional tile faces.



Each of the (14 possible) 'opponents' appear at the edge of the screen as little faces, complete with animated blinking eyes. Gameplay conforms to the Cantonese rule-book, with three difficulty levels to choose from. You won't find any instructions with the game, though the supplied help file does direct you towards some recommended reading. Also available for the Nokia 7650. \$25, from www.m-internet.com.

shanghai pocket essentials

The definitive Mah-Jongg has come to the Palm OS. Shanghai Pocket Essentials is a modern, solitaire version of the same named ancient oriental game and is based on Activision's Shanghai Mah-Jongg series.

"The graphics are stunning; LandWare wins the crown for the 'Best Tile Matching Game' by a runaway landslide win."
— PDA Square.com



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— BusinessWeek Magazine



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*m125 does not support recharging.

Keyboards for all

Steve Litchfield takes a whistle-stop tour of the hugely varied world of handheld keyboards

Surely one of the biggest peculiarities of modern times is the way we input characters into our desktop computers? Having arranged the letters of the alphabet in a certain, remembered-from-childhood order, we then scatter them about, seemingly at random, in the standard 'QWERTY' layout. According to legend, the original idea behind this design was to separate often-used combinations of letters so that the striking levers on typewriters didn't jam on their way towards the paper, a *raison d'être* that seems horrifically out of place in the new digital age.

But, however inelegant, most of us have learned how to type quickly on a QWERTY keyboard. In fact, the layout is so ingrained that a switch to another layout would be very confusing indeed. Handheld devices have appeared over the years with alphabetic layouts (e.g.

the Psion Organiser II) but they've never really taken off, and every successful mobile keyboard solution has used the QWERTY system or its regional equivalent.

A brief history lesson

The Psion Series 3 in 1991 was the first real example of a mass-market palmtop computer with a usable keyboard, even though the keys themselves were little more than calculator buttons. The preferred input technique was holding the palmtop in both hands and using both thumbs, a method which worked surprisingly well and which could achieve up to 30 words per minute (wpm). This was followed by the slightly larger Psion Series 5 range, in 1997, with (almost) desktop-quality key mechanisms and input speeds of up to 50 wpm in skilled hands. Windows CE licensees followed shortly afterwards, with their own keyboarded palmtops, but with ever-increasing size and weight.

In contrast to this timeline, Jeff Hawkins had a vision of a handheld with more limited input capabilities, but which was small and light enough to take everywhere. Since 1995, the tiny 'Pilots' (later PalmPilots and then Palms and other compatible Palm OS handhelds) have been a huge success, and until recently most users have stuck to writing small amounts of text (rarely more than 20 or so characters at a time) using the built-in Graffiti gesture recognition system. Even Microsoft was compelled to change direction, reinventing Windows CE for keyboardless handhelds, under the moniker Pocket PC and originally using Jot character recognition.

New millennium, new vision

Although there are undoubtedly still a lot of people using their Palm OS and Pocket PC handhelds as humble organisers, the new millennium's technological advances in miniaturisation, wireless data and battery life have brought increased expectancies for handheld computers. These days, in addition to all their previous duties, we expect them to be able to collect email, browse a web site or facilitate the creation of a letter or business report.

The problem of how to input text remains, of course. Palm's Graffiti and Microsoft's Block Recogniser, Letter Recogniser and Transcriber are as frustrating as ever—perfect for short diary entries and telephone number alterations, but rather out of their depth when composing more than a short paragraph. The solution, not surprisingly, is the comeback of the QWERTY keyboard in various guises,

each with their own set of compromises. Let's take a brief tour of the keyboard types available today:

It's already there!

Simplest of all, of course, are the keyboards already built into some handhelds. Psion's Series 5mx is still available (www.psion.com), although the uncertain future of the marque and the low contrast screen rather detract from the excellent keyboard. Likewise, the HP Jornada 720 series is still around, for a while at least, running 'Windows for handheld PCs 2000'.



The Psion Series 5mx has what is probably the very best palmtop keyboard to date...



...and the Nokia 9200 series boasts the best keyboard on a mobile phone/communicator



The Handspring Treo keyboard (actual size)

The Nokia 9200 series 'Communicators' (www.nokia.com) also sport a usable QWERTY keyboard reminiscent of the old Psion Series 3, and with similar typing speeds.

A recent phenomenon has been the successful introduction of miniaturised keyboards into recent Handspring (www.handspring.com) and Sony (www.sonystyle.com) handhelds. The version in the Treo range is especially impressive, optimised in software to compensate for large fingers hitting more than one of the small keys simultaneously (see also page 31).

Software to the rescue

Although the tiny on-screen keyboards on Palm OS and Pocket PC handhelds don't really warrant a mention here due to their fiddly 'hunt-n-tap' nature, the **Fitaly** software utility (www.fitaly.com) offers genuine improvements on both platforms, provided that you're willing to invest a few weeks learning to use the system properly. In contrast to the delib-

erately inefficient QWERTY layout, Fitaly's 'keys' are laid out for optimum speed of input (in the English language, at least), with several users claiming 50 wpm or more, and a best recorded figure of a staggering 82 wpm.

The Fitaly system is also available as a plastic overlay for the Palm's Graffiti area, known as **FitalyStamp**. QWERTY-based overlays are available from other sources, including www.silkyboard.com, and these are generally an improvement over the Palm's built-in Graffiti system.



The Fitaly keyboard running on a Pocket PC

Plug in and turn on

The past two years have seen an explosion of keyboards that snap onto the handheld's desktop synchronization connector. You've probably read about (or seen in action) the famous **Stowaway** keyboard, rebranded by Palm (store.palm.com) as the **Palm Portable Keyboard**. Offering more or less full desktop keyboard feel and speed, it's constructed in four hinged sections and folds up to roughly the same volume as the handheld itself. The only downside is that you need a firm surface to rest the contraption on as it doesn't lock 'open'. The handheld itself is supported above the connector mechanism, to present its display at the right angle.

Versions of the Stowaway design have been produced for all other Palm OS and Pocket PC variants (www.thinkoutside.com), and various handheld manufacturers have produced variants or licensed the design to create own brand units.



The extremely durable GoType! range

If you prefer rigidity (for example, to use on your lap on the train) at the expense of physical size, the **GoType! Pro** range (www.landware.com) is a tried and tested solution for Palm OS handhelds. Key size and travel are slightly less than on a desktop, with a corresponding slight decrease in typing speed, but the one piece design is extremely robust and, anecdotally, I've never heard of a GoType keyboard failing. There's also a version of the GoType! Pro for the Cassiopeia Pocket PCs.

New on the scene is the single-fold **Pocketop Portable Keyboard** (www.pocketop.net), which is compatible with any handheld with





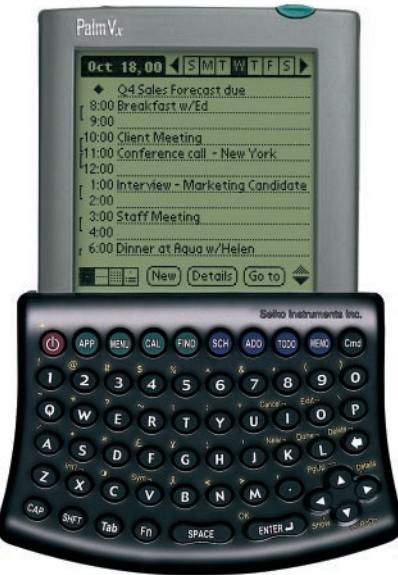
The compact Pocketop Portable Keyboard

an infrared port. A variety of cradle/reflectors are available to make sure your PDA and keyboard stay in touch. Interestingly, the keyboard comes (for Palm OS, at least) with a screen-rotating utility so that even with the handheld in an infrared-sending orientation, the display is still the right way up to be read.

If you can accept connecting your handheld by a cable and propping it up independently, the **KeySync** keyboard (www.ibizcorp.com) is available for virtually all Palm OS and Pocket PC handhelds.



The KeySync is available for most handhelds



Seiko's clip-on ThumBoard

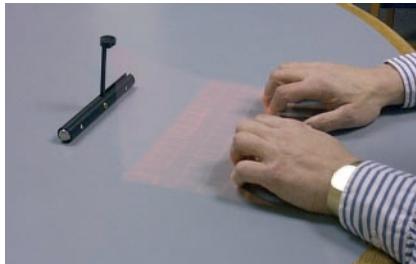
Minatures

Although in a totally different league in terms of typing speed, there are also a number of miniature keyboards that clip onto the serial connector and either form a sleeve for the handheld or hang off the bottom. Many of these are designed for the Universal Connector on the Palm m500 series and include the **ThumBoard** (www.seiko-austin.com), the **ThumbPad** (www.targus.com), Palm's own **Mini Keyboard** (store.palm.com) and TT Tech's similarly-named **Portable Mini-keyboard** (www.tt-tec.com). TT Tech also does versions of its unit for the Handspring Visor and for all Compaq iPAQ Pocket PCs. In each case you can expect to get up to around 20 to 25 wpm with practice.

Looking to the future

Keyboard technologies that would once have seemed science fiction are starting to appear in real products. The **Flexis FX100** 'rollable' keyboard (www.man-machine.com) can be rolled up and popped in your pocket when not in use. It's totally sealed, so you can even wash it in soapy water with the dishes if it gets dirty! Cabled versions of the FX100 are available for most Palm OS and Pocket PC handhelds.

Looking further ahead into some truly amazing technology, there's the Virtual Keyboard (www.virtualdevices.net). This pocket-sized device plugs into your handheld and utilises a three-dimensional laser imaging system to project a full-sized keyboard onto any flat surface.



Looking to the future—the Virtual Keyboard

The gadget uses tiny cameras to track where you put your fingers and then translates this into actual data which is received by the handheld device. According to a recent press release from Virtual Devices, "The company's technological breakthrough can even suspend a virtual keyboard in thin air".

Quality software

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RMRDiet - Diet, Weight, & Exercise Tracker

Diet **Weight** **Exerc** | Oct 26 |

Food	Size	Cal.	Ch.
coffee, brewed	6.0 fl	4.0	0.0
oatmeal, w/ r... apple, med no ... egg omelet, o...	1.0 cp 1.0 of 1.0 of	311.0 72.0 190.0	49.0 0.0 49.0
RMRDiet	681/1769/ 38		
CHOL: 191/ 49	38		
CHOL: 496/ 300/ 16	38		
300/ 16	38		
CRAB: 168/240/ 4	38		
FIBR: 4/ 24	38		
SUGR: 52/ 40/13	38		
PROT: 27/ 88/ 37	38		

Diet **Weight** **Exerc** | Oct 26 |

Date	Time	Weight	Change
10/1	1:55 am	94.0	0
10/5	1:55 am	82.0	-2
10/10	1:56 am	84.0	-2
10/15	1:56 am	81.0	-3

Targets
Goal weight: 151 st 4 lb
lb per week: 1.0
Weeks to goal: 13
Daily calories: 2499/1999
C/P/F: 80-10-10; vegetarian

£10 / \$15

Diet **Weight** **Exerc** | Oct 26 |

Time	Exercise	Ex...	Cal.
8:30 am	aerobic dance	0:45	378
5:00 pm	tennis, gen'l	0:10	98

Calories: 1998 | Carbs: 399
Total fat: 22 | Fiber: 39
Cholest: 300 | Sugar: 66
Sodium: 2400 | Protein: 49

Intake: 2744/1769/155% | Burned: 477/975/48%

77 10/1 10/25

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An introduction to



Bluetooth™

Steve Clack takes an introductory look at one of the most important emerging technologies for PDA users

Time was when infrared was considered pretty clever technology. To those of us used to connecting two computers via an RS232 serial connection needing configuration at both ends, suddenly being able to copy files from a metre or so away, across the ether, was decidedly high tech.

Nowadays, expectations are a little higher. 802.11b (Wi-Fi) technology allows us to network desktop computers together without wires at distances of up to around 100 metres, reducing the need for cumbersome cabling and generally giving us more freedom to roam, moving desktop and laptop computers from room to room with relative ease.

The wireless handheld

Although 802.11b can be used to make a wireless connection to a palmtop computer (802.11b 'sleds' are available for various handhelds, and a few new models even have the facility built in),

there's an alternative that offers lower power consumption, being designed primarily as a means of connecting accessories rather than networking computers. That alternative is Bluetooth.

How does it work?

In simple terms, Bluetooth is short-range wireless system, working at 2.4GHz, designed to incorporate all the necessary security features needed to prevent unauthorised users from usurping it to access data on your device without you knowing.

With low cost, ultra-compact circuitry and a range of up to around 10 metres (this varies, depending upon whether you are indoors or outdoors), it's particularly suitable for inclusion in mobile phones, as well as handhelds.

What can it do?

Bluetooth technology is developing at a rapid rate, and many new applications will be appearing over the coming

months. In the short term, think of Bluetooth as an alternative to your existing cables and infrared. If you're used to making an Internet connection by using infrared or a cable from your handheld to a mobile phone, Bluetooth will let you make that connection from your desk, even though the phone may be locked in your briefcase. If you synchronize your handheld by plugging into a desktop cradle, Bluetooth will let you do it from an adjacent room, all without need for a physical connection. For those handhelds that are capable of outputting to a printer, Bluetooth makes it possible without cables, once again.

Making the connection

Needless to say, in order to operate using Bluetooth you'll need a suitably equipped handheld, and any other device you intend to connect to must be similarly Bluetooth-equipped. Handhelds with integral Bluetooth have recently started to appear, including the Compaq iPAQ 3870 and the O² XDA. For those without the facility built in, a number of plug-in solutions are available:

- ▶ For Palm handhelds with an SD (Secure Digital) expansion slot, Palm offers a Bluetooth SDIO card (www.palm.com). A number of plug-in sleds are also available, such as TDK's Blue5 and BlueM (www.tdksystems.com), with the latter supporting older Palm V series handhelds that lack SD expansion.
- ▶ For the Handspring Visor range, Red-M (www.red-m.com) offers a Bluetooth Springboard module, as well as sleds for Palm devices.

- ▶ Sony offers a Memory Stick-based Bluetooth unit for its Clié range (www.sonystyle.com), though availability is currently somewhat limited.
- ▶ For Compaq iPAQs without the feature built in, try Compaq's own Bluetooth sleeve or TDK's BluePAQ.
- ▶ For other Pocket PCs, various SD card and CompactFlash card-based Bluetooth modules are beginning to appear. Check your handheld manufacturer's web site or your dealer for current availability.



Nokia's 6310i Bluetooth-enabled phone

- ▶ Aside from Symbian devices with built-in Bluetooth, such as the Nokia 7650 and the forthcoming SonyEricsson P800, Psion and Symbian OS users are currently unable to take advantage of Bluetooth. Although the necessary hardware exists in the form of CF and PC card adaptors, the driver software hasn't yet appeared.
- ▶ A limited number of mobile phones are now available with Bluetooth built in, including the Nokia 6310i and Ericsson T68i. It's not currently possible to retrofit Bluetooth into non-Bluetooth phones.
- ▶ For desktop computers, compact plug-in USB Bluetooth adaptors are available from TDK and 3Com (www.3com.com), or for Apple Macintoshes using the USB D-Link adaptor (www.apple.com/bluetooth).
- ▶ For laptops, there are Bluetooth PC Card adaptors from various manufacturers, including 3Com and Xircom (www.xircom.com).
- ▶ A few printers are already available with Bluetooth built in, but parallel port adaptors are also available for those that lack the feature (www.shopping.hp.com).

Pricing?

Pricing of Bluetooth add-ons is in a major state of flux at the moment, as the technology moves from niche market towards a mainstream product. The most economical way to get Bluetooth is undoubtedly to buy products that are fitted with the feature as standard. Until that becomes commonplace (hopefully



Bluetooth running on a Pocket PC

no more than a year or so away), we'll have to pay a price premium to add it to our existing PCs and other devices. At the time of going to press, prices range from \$50 for the Apple D-Link Bluetooth adaptor, to more than four times that amount for some USB and PC Card adaptors. Before too long, expect most desktop and laptop computers, printers and handhelds to have Bluetooth incorporated, eventually at no more extra cost than you're currently paying to have infrared built into your handheld.

Simple setup

Setup of Bluetooth varies from one device to another, but Bluetooth-enabled handhelds are able to scan the local area for other devices that they can connect to. Once found, devices can be 'bonded' (also known as 'pairing') so

that they'll always recognise each other and allow instant connectivity whenever they're in range. The whole process is very simple, taking only a minute or two to set up.

A new found freedom

With Bluetooth technology, we're at last beginning to see real benefits of wireless connectivity for handheld computers. Although an ever-increasing number of PDAs will have full-blown mobile phones built-in, Bluetooth gives the option of using a separate PDA and phone, while maintaining email, web and SMS connectivity via a PDA-to-phone Bluetooth connection.

As well as connecting to desktop computers and peripherals, Bluetooth works equally well between PDAs. A few Bluetooth games are already on the market, with more set to follow, allowing us to play interactively with anyone else in the near vicinity.

Although every Bluetooth-enabled device requires its own power source (or to be powered by the device it's attached to), the power consumption drops as the distance to the receiving device becomes closer. Thus, it's feasible to have Bluetooth keyboards for your handheld, GPS units, or virtually any other add-on that you'd currently connect via cradle, cable or infrared. The significance of Bluetooth on our future computing habits is not to be underestimated. Together with complementary wireless technologies, the ubiquitous connection cable will soon be going the way of the dodo.

Further reading

The Intelligent Wireless Web
(ISBN 0-201-73063-4)

Bluetooth Revealed
(ISBN 0-13-067237-8)

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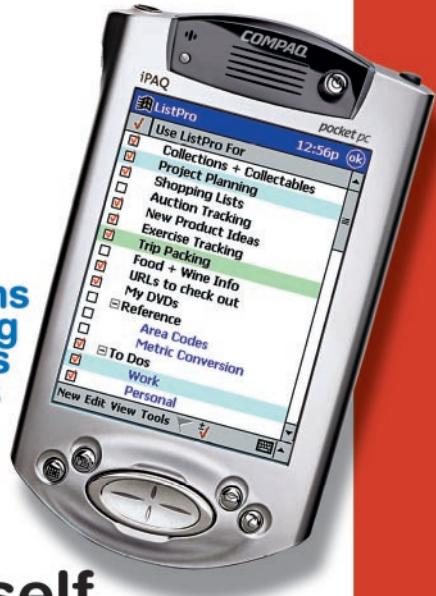
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Probing Pocket PC 2002

Wondering whether Microsoft's latest Pocket PC operating system offers a viable alternative to Symbian or Palm OS? Pete Sipple offers a PDA-veteran's appraisal . . .

Having been a PDA user for more than 15 years now, the chance to get to grips with a new operating system always gets my spine tingling. Having used just about every handheld operating system there is: EPOC, Palm OS, WinCE and a host of manufacturer's-own user interfaces, it's good to take a look at a new, cutting-edge system to see how things have progressed and how common palmtop problems of the past are being addressed.

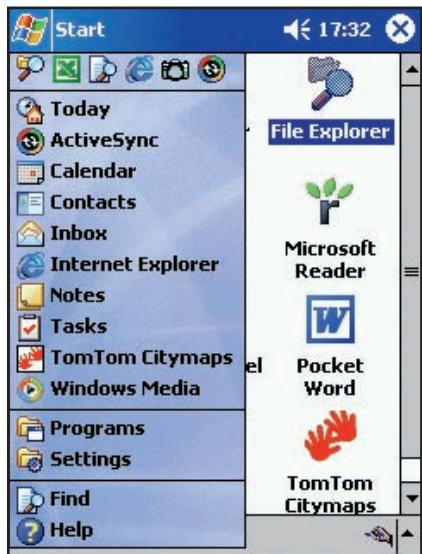
Reports are that the Pocket PC platform is gaining in popularity, and I was eager to dive into the operating system to see what Microsoft has to offer. As well as examining the differences between the various systems on offer today, the similarities are just as interesting. If, like me, you've used more than one PDA in the past, you'll be pleasantly surprised to find that some of the best bits have been borrowed from your favourite device.

Before looking at the applications themselves, let's take a moment to look at how you move around the system.

Navigation and input

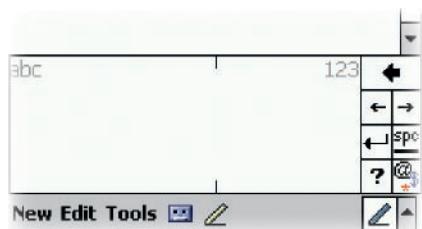
Microsoft's aim is clearly to make the PC user feel at home when holding a Pocket PC. Displaying the trademark Windows 'Start' button, system clock, tray and the little cross in the top right hand corner of the screen gives hardened Windows users the reassurance that it's all familiar, even though, in the case of Pocket PC 2002, the Start button's at the top and the menu's at the bottom.

Text entry without a keyboard is frequently cited as the main problem with the current range of tablet devices, be they Pocket PC or Palm OS. In the past, character recognition often hasn't quite been up to the job, and although easy enough to learn, many people never get around to mastering Palm's gesture-based Graffiti. Pocket PC 2002 has taken this on board, and provided no fewer than four ways of getting text

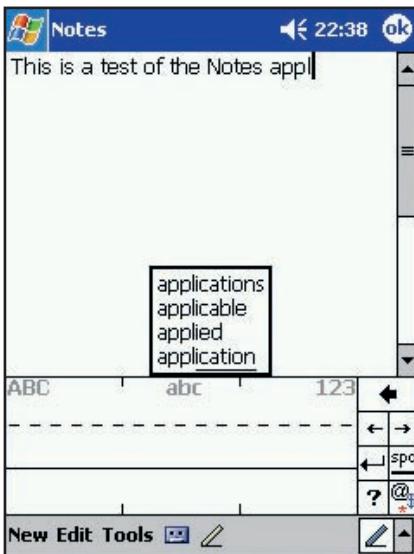


The familiar Windows Start menu

onto the device. Anyone starting out with a Pocket PC should take the time to try out each method and tinker with their settings to find out which one works best for them. Personally, I have found that a combination of Keyboard and Transcriber tends to work best for me. With practice, my text entry speed is getting better all the time, especially thanks to the Pocket PC's ability to compare text entry with the built-in dictionary for improved accuracy. The four entry methods available are:



Block recogniser, aka Graffiti



Letter recogniser, complete with lookup

1. **Block recogniser** - Palm OS users will recognise this as Graffiti. An on-screen area split into two allows for entry of special gestures to represent letters on the left, and numbers on the right. You'll need to learn the special keystrokes of course, but recognition accuracy is excellent (as with Graffiti on a Palm OS handheld), and an acceptable speed can be built up with practice.
2. **Letter recogniser** - Building on Block recogniser, this option splits the text entry area into three: capitals, lowercase and numbers. It accepts 'real' letters (as opposed to Graffiti gestures), and has a tiny adjacent panel with key functions such as backspace, new line and space. This is generally easier for users without previous Graffiti experience.



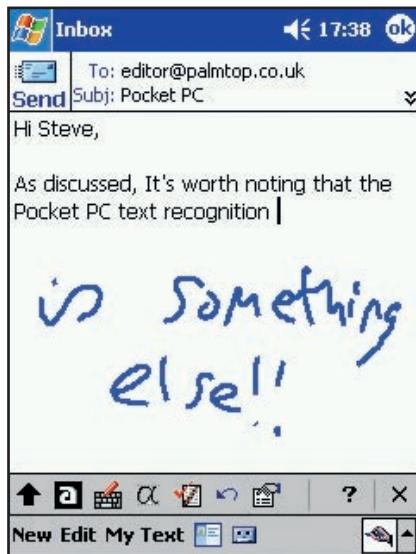
Easy text entry via on-screen keyboard

3. **Keyboard** - An on-screen keyboard. Screen size means that this is a little small and fiddly, but it's reasonably fast, and you know where you stand.

4. **Transcriber** - The first system since the Apple Newton to actually recognise entire words, including cursive (joined-up) writing rather than single characters, and fast enough to be effective. This is not installed on all Pocket PC 2002 machines by default—if not, look for it on the CD supplied with your machine. It doesn't have the ability to 'learn' your writing style as the Newton did, but you can 'train' it to a degree by going through a simple one-off setup routine that tells Transcriber what letter shapes you most commonly use.

Suffice to say that with minimal practice and, assuming that you have reasonably tidy handwriting, you'll be able to input text reliably by simply writing the words anywhere on the screen. Your text input will be mirrored briefly on screen (see screenshot top right), then disappear as it's automatically pasted into the underlying application.

There are a range of pop-up editing options available for when Transcriber mis-interprets a word or letter,



Composing an email with Transcriber

though as with any text input system, these slow things down considerably. The best way to work is to enter words at a fairly slow, deliberate pace, in order that everything gets recognised correctly the first time around. Casual users will find that Transcriber is capable of higher input speeds than Palm's Graffiti system, though not overwhelmingly so.

Also new with Pocket PC 2002 is 'tap-and-hold'. Tapping and holding on an object (such as a filename or an email message) pops up a small contextual menu containing commands such as Delete, Copy and Paste, comparable with a PC mouse right-click.

As standard, Pocket PC 2002 comes with a lot of on-board applications, although individual hardware manufacturers can choose not to include all of them in the

device ROM, perhaps substituting them with their own. Some applications may be supplied on the CD that accompanies the device, requiring separate installation. Let's take a look at the standard Pocket PC applications to see what's on offer:

Today

Essentially a summary, to coin an old Microsoft phrase, of "Where you want to go today". It's similar to the 'Today' view on the Psion Revo, telling you the date, listing your appointments, showing how many unread emails you have, telling you the number of tasks to do and how many of them are urgent. A single tap jumps you straight to the appropriate application, ready to take action. Today appears when your machine switches on after it's been inactive for a certain

number of hours, and so provides a useful summary.

Calendar

The mainstay of all PDAs, the Pocket PC 2002 diary has five views: a day summary, diary day, week 'busy' view, month view and a year calendar view.

Entering an appointment allows you to specify a location and who you'd like to be there. Selecting 'Attendees' brings up a searchable list of your contacts, allowing you to tick people you'd like to come along. In the background, Calendar will generate an email to your fellow attendees, invite them to the meeting and mail them next time the Pocket PC makes a connection to the Internet. If the recipients use Microsoft Outlook on their desktop PC, then the email appears as an invitation that can



What's new, Today?



Entering an appointment into Calendar



Calendar's Month view...



...and Day View

be declined, accepted or rescheduled. Their actions then get emailed back to your Pocket PC.

Calendar lacks some of the advanced features of third-party calendar applications now available for Palm OS, but is straightforward and easy to use. Perhaps most importantly, its synchronization with the PC desktop is without peer.

Contacts

Knowing the vagaries of PDA synchronization, I gingerly experimented with exporting my database of 900 contacts from my Psion Revo over to Microsoft Outlook and then to the Pocket PC. The result was surprisingly good, as all of my contacts and fields survived the transfer without problems. Integration with Outlook is something that Microsoft has obviously taken the time to get right.



Viewing a contact's details

Contacts can be sorted by name or by company, there are a series of tabs for fast access to contact names beginning with specific letters, and you can choose a large font—particularly useful, as there's generally very little text 'zoom' facility in the Pocket PC environment.

One thing lacking is a powerful search facility within Contacts. It's not possible to search through your contacts by fields other than name and company. There is however a partial workaround, in the form of a global Find option that can search for a text string anywhere on the machine, including Contacts—much like the global Find facility built into Palm OS, except that the Microsoft version can find text strings *within* words rather than only at the beginning.

Email and web addresses have hyperlinks, so a simple tap on an address

will bring up an Email editor or Internet Explorer as appropriate, and it's also possible to beam a contact card over to another machine.

Notes

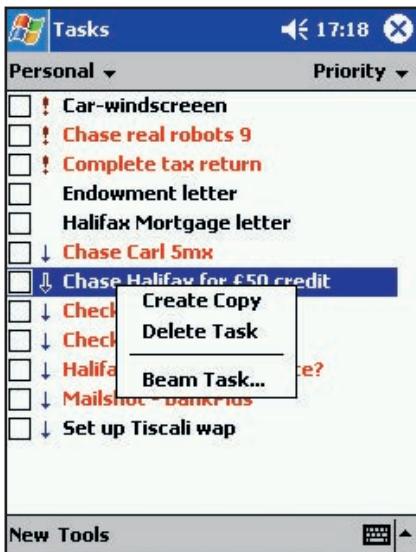
At first glance nothing more than a place to scribble a quick note with your stylus, much like writing yourself a Post-It. Beyond that, however, it's also used for voice recordings. On suitably-equipped Pocket PCs, pressing the 'Record' button starts a voice recording, storing it as a new 'Note'. You can also embed a voice recording into a scribbled note, and even email or beam your scribblings to other Pocket PC users.

You can switch between typed and scribbled notes, and, the one to impress your friends with, you can ask the Pocket PC to convert your scribbled notes into text, using the Transcriber engine. Considering that notes can be synchronized with Microsoft Outlook and the audio can be played back on your PC, Notes turns out to be considerably more powerful than first impressions indicate.



Tasks

This is your to do list manager and, as you might imagine, it's designed to work well with its big brother, Microsoft Outlook. Enter a task's subject, priority, due date, a reminder and maybe a text note, and next time you link with your PC, it's there in Outlook. Oddly, not all of the Outlook Tasks fields are synchronized: the 'percentage complete' doesn't copy across, and the 'status' is simplified to 'Completed' or 'Not completed', seemingly ignoring the other options such



Tasks, Pocket PC's to do list manager

as 'Not started' and 'Deferred'. You can beam a task but, oddly, you can't email a task, or even a status report (as you can with Outlook 2002 tasks).

Windows Media

Despite being less powerful than its desktop counterpart, Windows Media still manages to impress. Supporting Windows Media Video (WMV) and MP3/WMA audio, taking small chunks of video and music on the move is now very easy. On a 64MB machine with a fair amount of free memory and a set of stereo earphones, about an hour of stored music is possible, provided your batteries hold out (audio and video are naturally quite power-hungry). You can compile playlists of media, shuffle your selections and, with a suitable connec-



Playing a WMV video clip

tion, even play music and video direct from the Internet.

Customisation is supported, via downloadable 'skins' that allow the application's look to be altered, and the hardware buttons can be re-mapped to specific functions (such as track skip, volume, etc.) It's also possible to call up the Properties page for each clip and look at the sample rate, compression format, copyright information and duration. It's still no substitute for a portable DVD or a dedicated MP3 player with lots of free memory, but it's certainly fast and stable.

Pocket Excel

Serious spreadsheeting on a small screen always tends to be a slightly frustrating experience, though the 320x240 pixel 'portrait' screen format of current

Pocket PC 2002 devices makes the experience more bearable than with most Palm OS handhelds. At a sensible zoom level, a 12-row by 4-column spreadsheet is a bit limiting for serious number crunching, but if you can live with that then you'll find this implementation of Excel perfectly usable.

Pocket Excel lacks a few of the advanced features you'll find on the Psion/Symbian spreadsheet applications or on many of those available as add-ins for Palm OS devices—most notably, there's no charting feature, though there are third-party plug-ins available for this. On the other hand, you'll find easy and fairly comprehensive cell formatting options, named ranges, well over 100 mathematical and other functions, multiple zoom levels, multi-sheet workbooks, find and replace, Autosum, password protec-

tion, sorting and most of the usual basic spreadsheet tools.

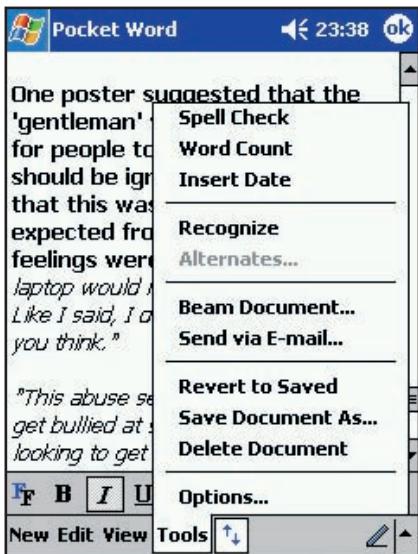
A particularly useful feature of Pocket Excel is 'AutoFilter', which will be quite familiar to all serious desktop Excel users. AutoFilter can be used to show only those rows in a worksheet that meet specified criteria, such as those where the value in a certain column is greater than "47", or whose text begins with "Total". All rows that don't match the criteria are masked from view, making it easier to interpret and summarise data on the small screen.

There's also a handy feature on one of the toolbars to select a range of cells and get an instant on-screen indication of the average cell value, a count of the number of selected cells, the minimum or maximum value or the sum of all the selected cells.

	A	B	C	D
12	01-Mar	45	KFM / Ten17 / 486 b	
13	08-Mar	49	Vibe Net probs	
14	15-Mar	56	Vibe Virus	
15	22-Mar	45	Training col	Assumed
16	29-Mar	49	Accounts mc	Assumed
17	05-Apr	40		Assumed
18	12-Apr	40		Assumed
19	19-Apr	41	Oasis RAID	Assumed
20	26-Apr	40		Assumed
21	03-May	40		Assumed
22	10-May	40		Assumed
23	17-May	42	KFM visit	Assumed

Pocket Excel has a some powerful features

Easy access to a variety of formatting options



Pocket Word offers fairly basic functionality

A 'Save as' option allows saving in a variety of current and previous Excel formats (back to Excel 5.0/95), although sadly there's no CSV option.

Overall, Pocket Excel is surprisingly pleasant to use and deceptively powerful in many areas.

Pocket Word

Again, lacking some of the features that you've become accustomed to on your desktop PC (including, sadly, tables and fields), Pocket Word is still up to the job of composing basic documents, or viewing and reviewing a document created on a desktop machine. Basic font and paragraph formatting is all present and correct, together with the usual alignment options, indenting and support for bulleted lists. Word count

and spell checking facilities are both included, but with no thesaurus.

When opened, Pocket Word presents a list of files, which can each be opened, moved, renamed, emailed or beamed. Once inside a document, navigation is pretty straightforward, with a range of zoom options available and the ability to either word wrap or preserve line endings on screen.

As with the Notes application, Pocket Word supports direct entry of scribbled text, and is able to transcribe this into 'typed' text at the tap of a menu command. Likewise, Word can have voice recordings embedded as tappable objects, as well as basic object embedding, via a (very basic) set of drawing tools. Document creation and editing is thus fairly painless, made easier of course by Pocket PC's inclusion of the four standard text input options.

Connectivity

Microsoft has put a lot of effort into ensuring that the Pocket PC offers good connectivity with the wider PC world. Communication is possible via Bluetooth (for Pocket PCs that support it), infrared, serial cable and USB. The 'Connections' pane of the Settings menu option is the place to go to tweak connectivity settings, allowing you to add or alter an Internet Provider's settings, infrared beaming options and dialling preferences. For the more technical user, you can also set VPN, proxy settings, NDISWAN and Ethernet network support.

Assuming that you have a PC docking station and the ActiveSync program installed onto your PC, you can have the



An ActiveSync in progress...

Pocket PC use your desktop's Internet connection for directly checking email, surfing or chatting. Otherwise, you can use your mobile phone (if it has infrared) or a desktop modem to connect to the Internet and stay in touch. Apart from some initial hassle working out how to stop my unit from dialling a zero before every number, connecting either at my desk or on the move has been pretty straightforward, and a much better experience than on my old monochrome Psion Revo.

ActiveSync

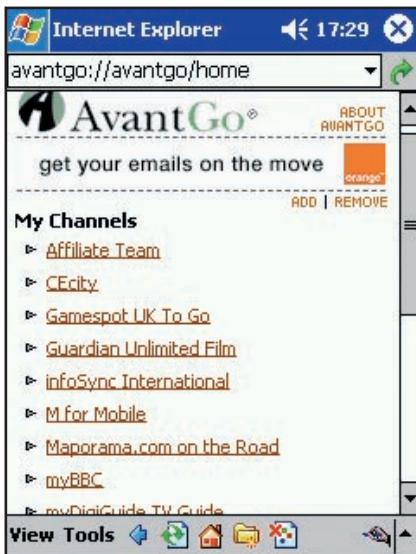
This has to be the best PC connectivity solution that I've seen for a PDA, and I've tried them all. It beats PsiWin, EPOC Connect and even Palm Desktop. Integration with Microsoft Outlook is seamless, and the act of simply placing

the Pocket PC into the USB cradle starts an ActiveSync. After a couple of minutes, desktop and palmtop are both up-to-date, emails are passed from the Pocket PC to the PC Outbox ready for sending, a few hundred kilobytes of AvantGo data are downloaded and the device is safely backed up.

Document conversion is achieved by opening the 'Mobile device' icon from your PC's 'My computer' icon and dragging files from the Pocket PC to a folder on the PC (in much the same way as PsiWin's 'My Psion' icon). Document conversion is generally good, though sadly some of the more advanced formatting such as embedded images and bullet points doesn't copy across. Word tables from the PC come out as text-only on the handheld, although heading styles and table-of-contents are preserved. Apart from graphs, Excel conversion appears to remain faithful. While not perfect, this conversion compares well with the best out-of-the-box solutions that I've seen supplied with other PDAs.

Although there's no direct support from Microsoft for non-PC users, PocketMac (www.pocketmac.net) offers most of the functionality of ActiveSync for those running OS X on an Apple Macintosh, and support for Mac OS 9 is reportedly coming soon. Perhaps ironically, it appears that the very best Mac-to-PDA compatibility ever is with Pocket PC 2002. We'll be running a full review of PocketMac in the near future.

Connectivity between Pocket PC 2002 and Linux computers is also possible, and several projects are under way to improve convertors and



AvantGo—hot news for Pocket PC or Palm

compatibility. You'll find some useful information at www.cewindows.net/wce/linux-serial.htm.

AvantGo

If you've used this on a Palm OS device there won't be many surprises here, but if not, you owe it to yourself to sign up and try out this free service. Subscribe to any of more than 1000 'channels' of content, enter your preferences and the content is delivered to your device when you next perform an ActiveSync. The content is viewed (offline) using the built-in Internet Explorer web browser, where you can follow links, complete forms and change settings without an Internet connection. Before I leave for work in the morning, a quick dock of my Pocket PC means that I have the BBC and ITN



Initiating an Internet connection

news headlines, my local weather, local travel news, the day's TV guide, plus a few channels of Industry information downloaded and ready for me to read on my commute to the office.

Internet Explorer

Although the web browser supplied with Pocket PC 2002 lacks features such as text search, source view or a full-screen mode, it does have a history list, support for cookies and a bookmark manager. It also supports 'https' security and Javascript. With some minor modifications in the Settings section, Internet Explorer can be altered to access WAP content directly from a WAP gateway.

The 'fit to screen' option and the ability to change the text size help to squeeze as much as possible onto the fairly small screen, but the upshot is pretty much the

same as with most handheld browsers—large and complex web pages just don't work well on a little screen, and with lots of frames and animation, things can get messy. For simpler sites and everyday browsing, Pocket Internet Explorer manages to do the job well, is fairly fast, and has the added bonus of allowing synchronization of your bookmarks with your PC.

Inbox

If you use Microsoft Outlook on a desktop PC then you'll love email handling on Pocket PC 2002. Before diving too far into Inbox, I used ActiveSync to get the contents of my Inbox onto my palmtop. Once the transfer was complete, not only had my recent messages been copied across, so had the entirety of my rather complicated folder structure.

You can use Inbox in one of two ways: if you're a road-warrior then you can configure your device to dial up your Internet Service Provider and get your POP3/IMAP4 email downloaded directly to your device. Or, if you prefer, you can take a copy of what's in your PC's email system, read and compose replies while on the move, and simply have your replies and other actions synced over to your desktop at the next ActiveSync. The latter method is not only the cheaper of the two (not requiring a slow call via a mobile phone), but it's just so easy. I still smile whenever I dock after writing replies on the move, when I see the original messages automatically change from 'unread' to 'read', then see new items appear in my desktop Outbox before popping into the Sent folder.

Other email features include spell checking, recipient lookup from Contacts,



Internet Explorer 16:50

https://new.egg.com/customer/0...

Account Number: 4627 8510 0866 2538

Current Balance: £ 59.98

Credit Limit: £ 7000.00

This statement runs from 22 May 2002 to 22 June 2002. Click below to see transactions processed after your most recent statement.

View your recent transactions.

Date	Description	Amount
22 May 2002	OPENING BALANCE	£59.98

View Tools

Secure online banking



Inbox 19:45

Show ▾ Received Date ▾

- News 3K
- Outbox 3K
- Psion 2K
- Receipts 2K
- Scriptless 2K
- Sent Items 2K
- Tiscali email 2K
- Deleted Items 2K
- Drafts 3K
- Inbox 3K
- Outbox 3K
- Sent Items 3K

Tina Judic 14:12 3K O2 Relaunch!

Choose Folder...

New Tools Services

Inbox preserves your Outlook folder structure

file attachment handling, configurable quick-entry text items (including a rather crass "I love my Pocket PC") and a status page showing actions to be performed at the next connection.

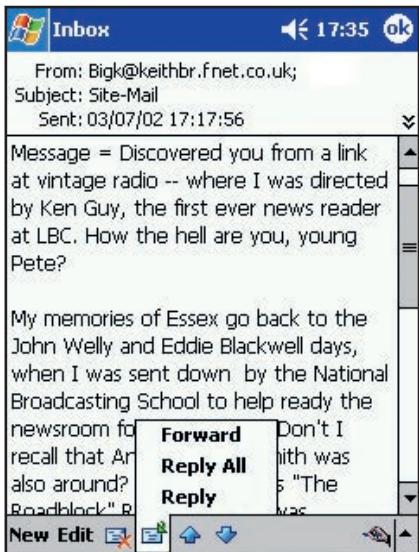
MSN Messenger

Addicted to instant messaging? The pocket equivalent of the popular MSN Messenger is included, and works beautifully. You can see which of your 'Buddies' are online, start a chat, invite others to join you, change your online status and block buddies. Microsoft has done a good job of adding this chat client. The only thing missing is the collection of 'emoticons' available on the desktop counterpart, so you'll have to learn the text alternatives for smile, wink, cool, kiss, handcuffs and beer!

Microsoft Reader

This allows you to read e-books on your Pocket PC. If you want to read copy-protected titles then Reader requires 'activation', which involves setting up a Microsoft Passport (which you may already have if you use Hotmail or MSN). Once activated, you can start installing e-books (which must be in Microsoft's '.lit' file format).

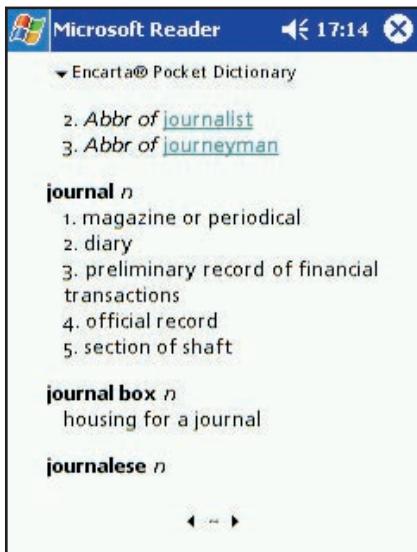
The reader itself offers exceptionally clear and easy to read text, using Microsoft's ClearType system to anti-alias the fonts. All your electronic texts are neatly listed within your 'library', and it's possible to annotate items of text with the electronic equivalent of a yellow highlighter pen, text notes and even scribbled drawings. The usual bookmarking feature is available to keep track of where you are, and with a suitable Internet



Viewing an email message



Instant messaging in the palm of your hand



Viewing a dictionary with Microsoft Reader

connection you can of course go directly online to purchase and download new reading matter.

At www.microsoft.com/reader you can download the free Encarta Pocket Dictionary, which contains 80,000 words which can be accessed via the Reader's 'lookup' facility.

As well as conventional electronic texts, Reader can also be used for audio books, such as those available from www.audible.com. Microsoft Reader supports Audible audio formats 1, 2 and 3, each with progressively better audio quality and ranging from 2MB of storage space required for an hour of format 1 audio to just over 7MB for an hour in format 3.

Apart from the curious lack of an auto-scroll feature in the current version (you have to scroll through the text page by



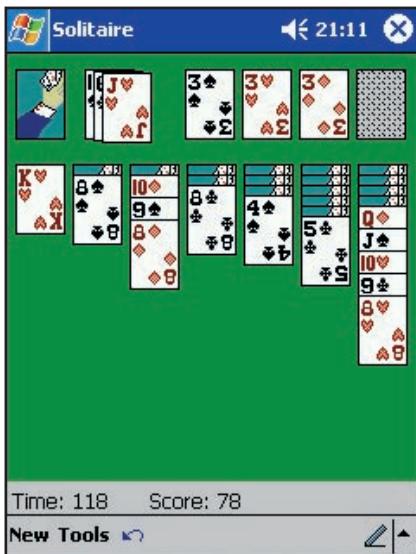
A useful global Find facility, similar to Palm OS

page), Microsoft Reader is a pleasure to use, and the annotation features are particularly useful.

...and the rest

As you might expect, Pocket PC 2002 also comes with a number of other minor utilities, as you'll find with any handheld operating system. **Calculator** provides a basic no-frills desk calculator equivalent, with some manufacturers adding in a useful currency conversion utility for good measure.

A global **Find** utility makes it possible to search for a text string across the entire device. To speed up the search, you can select the file/data type from a pull-down list. Results are promptly returned in a long list, with a single tap taking you straight to the item you were looking for.



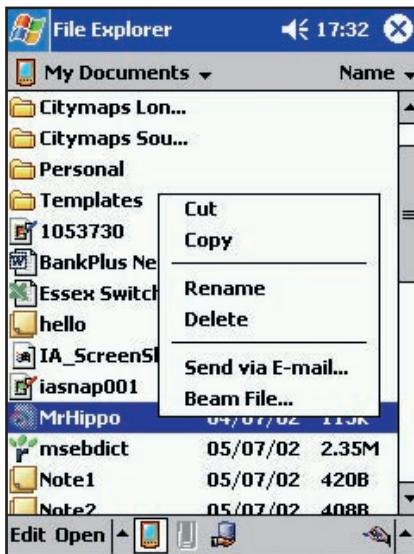
The obligatory game inclusion—Solitaire

Usefully, the text of all the online help files is also included in each search.

For entertainment, there's just one game included with Pocket PC 2002, that good old faithful Windows time-killer, **Solitaire**.

Unlike Palm OS, where the user is largely shielded from the internal filing structure of the device, Pocket PC 2002 uses a desktop-style filing system, which is accessed via **File Explorer**, much like its Microsoft Windows equivalent.

Most of the day-to-day file actions are handled from within the appropriate application (such as Pocket Word or Excel), but from the File Explorer you can open, rename, move or delete files, as well as copy them, send them via email or beam them to another device. File lists can be sorted alphabetically and, if you like to be particularly tidy with your filing



Keeping things in order with File Explorer

system, moved into folders. Windows users will be happy to see old friends such as 'My Documents', 'Program files' and 'Windows'.

A Control Panel-like **Settings** screen is used to provide control over features such as hardware buttons, input method, menus, owner information, password, sounds, Today view, backlight settings, clock, memory, power, regional settings, removal of programs, screen calibration and connectivity (including AvantGo, Infrared, Internet and Networks).

Summary

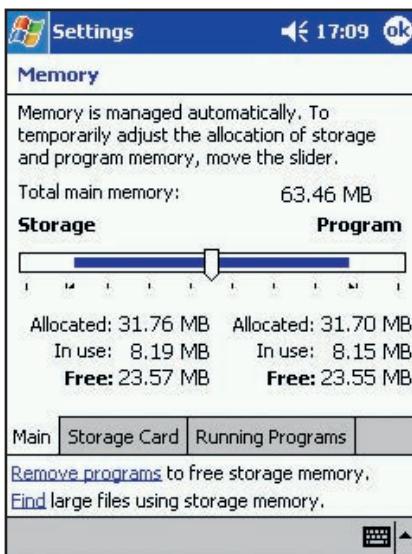
Having spent the past month using a Pocket PC 2002 device almost exclusively while on the move, this latest incarnation of Windows on a handheld has won me over. The screen clarity and ease of navigation are excellent,



Altering your system settings

and the integration with my desktop PC is mightily impressive, at least when synchronizing with other Microsoft products. Having used some of the earlier Windows CE machines and more handhelds than I care to remember, it's clear that Microsoft has been watching the competition closely, and is now really starting to do things right.

Character recognition has come a long way, and is now at the 'useful' rather than 'OK' stage, meaning that without



Memory management from within Settings

a keyboard text entry is now practical, though still relatively tedious for large amounts of text.

Pocket PC 2002 is now a serious contender in the OS field. Development of third party software for this platform is continuing apace, although choice and volume are still significantly less than for Palm OS. As with any computer purchase, you should check availability of your favourite applications before making a purchasing decision.

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Advancing your handheld experience

Working with iSilo

Paul Nelson offers insights into this powerful document reader and web tool for Palm OS and Pocket PC

I The handheld computer world seems to be awash with document readers these days, particularly in the case of Palm OS, and so often there's precious little to choose between one reader and another.

DC & Co.'s iSilo (\$17.50, from www.isilo.com) is often mistaken as 'yet another e-book reader', whereas in truth it's far more powerful and flexible. Aside from reading industry standard Palm OS 'DOC' format e-books on both Palm and Pocket PC handhelds, it's also a powerful tool for extracting pages of web-based content and storing them on your palmtop, complete with hotlinks and images.

E-book ease

The e-book reader component of iSilo is fairly standard fare, with the usual navigation tools and features to autoscroll, bookmark text and perform a global search across an open document.

Aside from the ability to read standard Palm DOC (.prc/.pdb) files, iSilo also

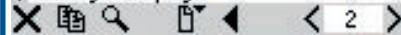
reads standard raw text (.txt) files. Although modern Pocket PCs are all shipped with Microsoft Reader, a perfectly serviceable e-book viewer in its own right, this will only read files created in Microsoft's own '.lit' format. iSilo therefore offers a useful means to access the huge quantity of files that are still only available in Palm DOC format.

The Palm OS version of iSilo lacks any option to anti-alias text to help make it easier to read, though Pocket PCs with

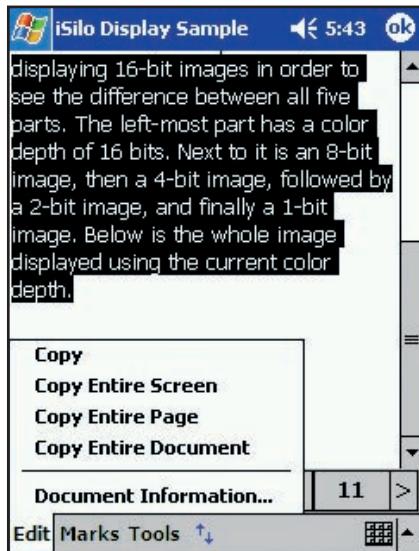
iSilo Manual.pdb

the read view

The read view presents the content of the document for viewing. When you view a given document for the first time, you start at the beginning of the document. A document may consist of one or more pages and the content of each page may either fit entirely within the bounds of the screen or if it does not, you can scroll through the page.



Reading an e-text on a Palm OS handheld

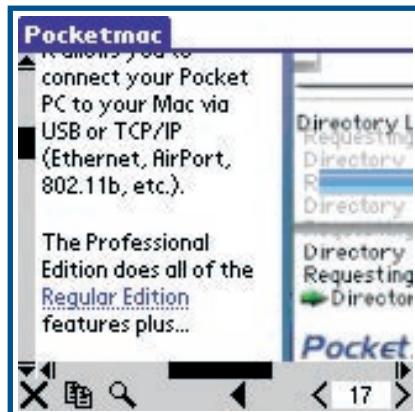


It's easy to copy blocks of text to paste directly into other applications

the option to enable ClearType on a global basis will anti-alias iSilo screens automatically.

As well as the usual navigation features, it's also possible to select and copy blocks of text from a document in iSilo, either manually by dragging across the required section, or using the appropriate menu commands to copy the current screen, page or the entire document, ready for insertion into another application. Note that most formatting will be lost when copying via the clipboard, and that the amount of text that can be successfully copied in this way will be limited by available system memory.

If you've tried to highlight a block of text and found that tapping the stylus on screen simply scrolls the page around instead, note that you need to tap the



Some 'rich' web content, courtesy of iSiloX

little 'Copy mode' icon at the bottom left of the screen before making a selection.

Web weapon

In addition to standard e-texts, iSilo is designed to read web content that has been created using its companion iSiloX program. This free utility takes pages, sections or even entire web sites, and makes them readable on your handheld, complete with text formatting and styling, hyperlinks, images and tables. The native iSilo format compresses web content very effectively, and it's truly surprising how many web pages and images you can squeeze into a small amount of storage space.

iSiloX is available (from www.isiloX.com) for Microsoft Windows, Mac OS (9 and X), with less user-friendly but perfectly serviceable command line 'iSiloXC' convertors for Linux, FreeBSD and Solaris platforms.

If you want to convert part of a web site to store and read on your Palm or Pocket

PC using the Windows or Macintosh version of iSiloX, just choose the option to 'Add document' and you're taken through a simple 'Wizard'-like setup process. This requires you to provide a name for the content you're about to download, the web address (URL) of the home page/s you're downloading from, and details of the handheld device you'll be copying the resulting file to once completed. iSiloX converts all content into its own variant of '.pdb' format, which is readable by both Palm and Pocket PC versions of iSilo, and indeed fully interchangeable between the two.

Preparing for download

Before allowing iSiloX to download the content into your desktop computer, you'll want to go into iSiloX's 'Document | Default properties...' menu item and configure exactly how and what iSiloX should download. The mass of options you're presented with may look horribly daunting at first glance, but they're primarily designed to resolve the following points:

Links: This controls the 'link depth', or how many page levels you 'drill down' within the web site. The more levels you include, the more you'll be able to follow hyperlinks through the site, but the more space the resulting iSilo file will take up on your handheld. Experiment a little to get a feel for how this feature works and how it affects file sizes. There's also the option to follow hyperlinks that lead to other web sites and to add a page containing details of any 'broken' links on the sections you've downloaded.

Images: Gives you masses of control over how (or even *if*) images are downloaded with the web pages. Large images can also be re-sized to any maximum dimensions you specify in order to fit on your small palmtop screen, though this can often make pages reformat unexpectedly and look a little odd. As with the link depth option, the more images you download and the higher you set the image quality, the more space the iSilo database will take up.

Tables: Gives the option to ignore or limit the inclusion of HTML tables in your download.

In most cases, you can safely leave all the other settings at their default values, though do have a glance through them once you've spent a little time with the program, as they offer some useful features for the more advanced user.

You can always go back and change the default properties at any time, or select an individual document and use the 'Document | Properties...' menu command to change its settings.

All systems go

Once you've run through the settings you can go into the desktop window that lists all your documents for conversion and tap on the 'Convert' or 'Convert All' button to process either the highlighted file or every file in the list.

Your computer will then go online and attempt to retrieve all the text, images and links that make up the web pages you've requested. You'll be given no warning of how long this is likely to

take, so it's up to you to gauge how much content you think you're about to be downloading. Obviously, if you've set things up to retrieve the contents of a huge site such as www.cnn.com, to a link depth of 10, then you can be sure that you'll not only be downloading for many hours, but that the resulting iSilo file will almost certainly be too large to fit onto your handheld. Remember, you can always hit the 'Cancel' button to abort the download if things are getting out of hand!

At the end of the download process you'll be presented with the option to view a list of any errors that occurred, such as broken hyperlinks on the source site, or simply content that iSiloX is unable to resolve or interpret, such as Flash animations. There's generally little you can do to avoid such errors, but in most cases you'll find that all the important content has copied over just fine, i.e. the text and images that you want to peruse. It's unreasonable to expect every little nuance of a site to be preserved, but you'll rarely have trouble getting the 'body' of the pages across.

Once the download is complete, you'll probably want to save the conversion list window, so you can re-download any of the sites you've set up at a later date, as they're updated.

Each site that you've downloaded will be 'potted' into a single file for download into your handheld. After synchronizing, each site will appear as a separate document in iSilo's file list, ready for you to open and browse (offline, of course) to your heart's content.

Virtual AvantGo

The current version of iSiloX has no built-in automation feature for timed download of selected content, so the standard way to set up regular downloads is simply to configure all the ones you want to access regularly in a single iSiloX document window and hit the 'Convert All' button each time you want to download.

By performing regular downloads of selected content, it's possible to use iSiloX in much the same way as AvantGo (see page 93), to feed up-to-date news content into your handheld. It'll take rather longer to set up and configure than if you were using AvantGo and the download times will be longer too. However, the resulting content is graphically richer, resembling the original web pages far more than the cut-down formatting used by AvantGo to minimise download times.

Experiment!

The combination of iSilo and iSiloX is extremely powerful, and when grabbing web content to view on your handheld there are many options and settings that can be tweaked. The best way to get to grips with it is to spend an hour or two experimenting with downloads. Once you've got the hang of it, you'll soon be filling your handheld with lots of useful web content.



<http://www.pdalive.com>

Where your PDA comes **ALIVE!**

Worth a Read

John Woodthorpe takes a regular look at the ever-expanding world of electronic books



The most confusing aspect of the various e-book web sites is ensuring that you download files in the right format for your particular combination of palmtop and reader software. Not so long ago, there was a very clear demarcation, with sites tending to concentrate on one file format or on one platform. That made it very easy to decide if you could use a particular file, but was also frustrating when you saw things that you wanted to read but didn't have the right hardware or software for.

Over the past year or so, software has appeared allowing a wider range of file formats to be read on each of the palmtop platforms. Some are based around the DOC format originally developed for Palm OS machines, and newer formats have also appeared, covering one or more of the available platforms. While it's good to have choice, it can take a while to work out if your software can cope with the file you want.

Although it doesn't hurt to download free books and try them out, it's obviously more important to get it right before buying a book. That's why the web site must give clear and accurate information to explain exactly what their offerings work with, especially as the commercial ones tend to be encrypted or in a proprietary format.

An old favourite

One of the 'old favourite' sites for free books has just been revamped with this need in mind, and has made a very good job of it. **MemoWare** (www.memoware.com) is always worth a look, but its Help section now includes a comprehensive alphabetical list of file formats from Aportis DOC to WordSmith, showing which platforms have software for reading them and providing links to download the right reader. Further help pages cover reading with Palm, EPOC and Pocket PC machines, and there's even information for a whole range of other devices, from the now defunct Apple Newton to the latest Nokia

communicators. The attention to detail is extremely impressive and makes the site well worth scrutinising, even in the unlikely event that you can't find any books there that interest you. MemoWare still has a clear categorization of books by topic, and a search facility so that you can find what you want or just browse what's on offer. When you have found a book, the download pages give equally helpful information, including a description of the file, available formats and so on.

Little shop of horrors...

As well as the encyclopaedic sites that hold a wide range of material, there are plenty of others that specialise in niche areas. A good example is the **Horror Masters** site at www.horrormasters.com/pda_classics.htm, which offers files in DOC format. The site has a very wide definition of the term 'horror', even including works from Wilkie Collins, Jane Austen and Charles Dickens, so it's still worth visiting even if you're not normally a fan of horror. Most of the texts are conversions of classic books available

from many other places, and initially popularised by **Project Gutenberg** (www.gutenberg.net). It's hard to say if the material here initially came from the work of Project Gutenberg, but like many sites it also provides a selection of original material contributed by readers. Alongside the palmtop section, there's a wide range of Adobe PDF files intended to be used on desktop machines, but also readable on most palmtops with the right software. These cover a wider range of the genre, including classic, Gothic, ghost stories, monsters, and some darker and more extreme material, some of which requires registration and is only available to readers of 18 and over. That wider range is accessible from the home page at www.horrormasters.com and the site leads into both the Horror and Palm E-Text Web Rings, allowing you to follow your reading interests in both directions.

Although the two sites are very different in their size, scope and design, both have something to interest anyone who likes reading on their palmtop.

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One of MemoWare's commendably clear download pages

On the NET

by **Pete Sipple**

Our regular look at what's happening online and where to point your browser

Focus on...PDAgeek.com

In each issue's On The Net, we'll be taking a look at one of the top-name PDA sites, and delving around to see what each site has to offer. In this issue, **PDAgeek** comes under the spotlight.

Parent site Geek.com caters for a vast area of geekiness, with sections called ChipGeek (riveting discussion of chipsets and computer processors), GameGeek (the latest for gamers, including news of an MP3 player for the Gameboy), and Geek Support. We're obviously interested in the rather large section aimed at the PDA-aware geek subculture.

Probably the biggest pull of the site is its news section. Most PDA sites offer news, but this one is better than most—bang up-to-date, comprehensive and well laid-out. Recent headlines included details of

an amazing new energy-saving lightbulb that's powered by radio frequency (RF). Radio signals plucked out of the ether make the bulb's gas glow brightly—the only problem is that they play havoc with wireless 802.11b networks. One bright spark (no pun intended) suggested a solution to the problem of radio-sucking lightbulbs—encasing them in lead.

As with most good news sites, readers can post their comments in response to a story. The site also excels with its review section, covering user impressions of the mainstream PDA products on the market (complete with marks out of six propeller-heads to indicate a product's quality and geekness).

Another section worth a look is the PDA features area, with pages of informed articles from the site's users. As an example, the article entitled 'Chic Geek' provides vital advice for the geek-about-town. My personal favourite, however, has to be 'PDAHorror', where worldwide users explain the daft things they've done with a PDA, and the subsequent mortality rate. Topics in this section include: 'Palm Scooter Safety', 'PDA plop', 'Home trampoline tragedy' and 'why man only has two legs'. Worth a read when you're in the mood for a chuckle.

www.geek.com/pdageek



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About Geek.com

PDA REVIEW

Nokia 9210 Communicator

Page 1

Reviewer: *Milan Tjioe*

Posted: *12/06/01*

NOKIA
9210
Communicator

RATINGS

Quality	
Geekness	



At A Glance

Description	The first real communicator on the market integrating voice and data with palmtop functionality.
Highlights	Works on the Symbian OS and is extremely fast for a 66MHz ARM processor, one of the best screens

Geek News

- Outclassed by technology in the drug war
- Dell latest in the shopping mall
- Bio-Computer
- ACLU claims broadband threatens free speech
- P2P programming star dies at 25

ChipGeek

- Quicks: Socket 478 to 423, Opteron DDR-1, AMD fanboys, Intel 300mm
- Nvidia NV30 delayed
- Intel's developer summit goes to Russia
- Intel's chips: what size too large?
- 1,001 headaches at 90 nanometer



PDAgeek

- Top 10 Raders on your Pocket PC
- Calligrapher update
- Pocket PC series PDA
- NTT DoCoMo unveils PDA/handsfree combo
- NTT DoCoMo mobile videophone

Buzz-off?

Newsgroups and web sites have been humming recently, following the announcement of some big changes at popular handheld site, **PDABuzz**. Wes Salmon, PDABuzz's Founder and Senior Editor, has been "let go" by the owners Handheld Media Group, which acquired PDABuzz this March. The new owners vow that the site will continue with a new editorial team, although without the founder, and following the resignation of all of the forum moderators, only time will tell...

www.pdabuzz.com

looking to see what makes the device tick, but by the FCC (Federal Communications Commission) in the USA. The story of the innards, containing a rather large 'Sony' moniker, can be found in the news section of the popular **Pocket PC Thoughts** site. There's a link to the FCC's site, which contains much more on the internal workings, giving some clues to the amount of effort it takes to get a product through the rather rigorous approvals process.

www.pocketpcthoughts.com

O²'s XDA exposed

The Pocket PC powered O² XDA phone has only just appeared on the market, but it has already been dissected. This time, not by an owner



On The Net online

For links to the sites featured in *Palmtop User*, please visit **On The Net Online**. While you're there, please take a moment to fill in our quick survey and tell us which PDA sites you visit most frequently, and let us have your comments on the magazine.

www.filesaveas.com/otn.html

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Remote backups

When away from base and working on a document, don't lie awake at night worrying that your hard work will vanish if your handheld or expansion cards get stolen. Simply attach the document to (or paste it into, if small enough) an email to yourself and it will happily sit in your POP3 inbox at your Internet Service Provider, waiting for you to retrieve it if required. If necessary, to keep these 'backup' emails separate from your normal messages, just set up and use a different address.

Ian McIntyre, Brisbane, AUSTRALIA

Extra Psion objects

Sheet, Record, Word and Sketch objects on a Psion palmtop can't obviously be inserted into dialog lines in Agenda, as the menu commands are locked out. But

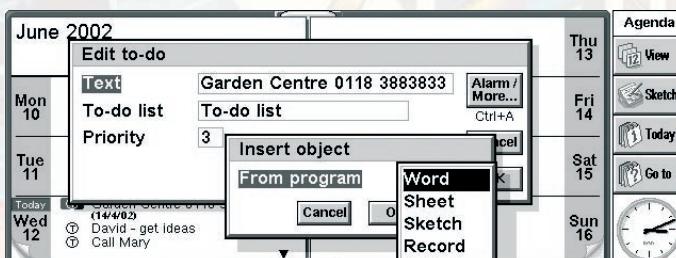
you can use [Shift]+[Ctrl]+[O] at any point and a dialog will appear, to let you insert the object of your choice.

Michel Medam, Marseilles, FRANCE

Editor's note: Slightly better known, but still worth documenting while on this subject, is [Shift]+[Ctrl]+[C], which brings up a special character selector at any point in any standard dialog or display, in any application.

Palm DateBk5 advances

Many users of DateBk5, the popular Palm OS Date Book replacement, are aware that they can automatically create an 'Advance', an early warning of an appointment or event a number of days before the actual date. The advance will appear every day until the event, or until you check off the advance because it's no longer needed. The advance also



**Inserting objects
directly into
Agenda entries
on a Psion
Series 5mx
palmtop**



DateBk5 'advances' give you plenty of early warning for important events

includes a count-down in the description, so "[5] Buy Lottery Tickets" tells you that you have five days left to get your winning numbers in.

What you may not know, however, is that there's a lot you can do to make the advance look better. Within the Details dialog, you can adjust the font, appearance, icon, colour or category, change the time or change it to untimed, and even shorten or rewrite the text of these automatically-created entries. As it moves forward each day, the countdown counter will adjust automatically, but any other changes you've made to the advance are kept.

The above is very useful if the reminder is too long, or appears in the middle of your day view for days on end, until the event occurs. Simple, but very effective, and so far I haven't managed to upset the reminder feature, as it correctly moves forward each day.

John Grove, Finchley, London

Hardware-locked software

Be very careful when registering software that ties itself to a particular hardware unit. I've been bitten four times with different programs on both Palm OS and Psion.

Think back to your handheld-owning history—the chances are you've upgraded several times or had replacement units from the shop or manufacturer. In these cases, you're entirely at the mercy of the companies providing the hardware 'unlock' codes. In my case the companies had disappeared, and with them the opportunity to get new codes. So, despite the fact that I'd paid fully for the software, I had no way of getting the programs to work.

The moral of this story? Support software which is tied to your name or HotSync ID, not to your specific unit.

Patrick Bowlay, Dublin, IRELAND

Registration User Id

**Register at
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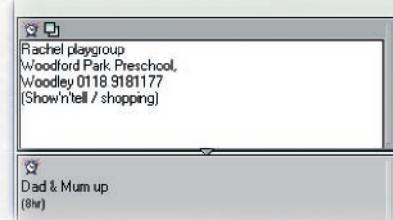
Ok

***Take care when buying
hardware-locked software***

Palm Desktop returns

Within the text of a Palm Desktop entry, I quite often want to space things down the screen by putting in carriage returns (i.e. new line characters) here and there. Pressing [Enter] on its own merely accepts the whole entry and returns to the Desktop, but it seems that pressing [Ctrl]+[Enter] has the desired effect, inserting a carriage return.

Bernadette Dixon, Austin, Texas, USA



Using carriage returns to make sense of a long Date Book entry in the Palm Desktop

Mac Palm Desktop corruptions

If you suspect that the Mac Palm Desktop data file may somehow be corrupted, try the procedure below before you panic:

1. Move the questionable file from its normal folder location.
2. Run the Mac Palm Desktop without your usual data file.
3. Create a new Palm Desktop data file by selecting 'New' from the 'File' menu.
4. Also on the 'File' menu, select 'Merge', and then merge your original file with the new one you just created.

If your questionable file is salvageable, it will merge in successfully. As a side benefit, the process will also compact your Palm Desktop data file, possibly reducing its size significantly.

Mark Falchook, Whitestone, NY, USA

Screen cleaning

The main cause of scratches on handheld computer screens is dust and grit caught between stylus and screen. An excellent way to keep your screen dust-free and ready for use is to use one of the special washable micro fibre cleaning cloths available from any good opticians. I've tried Pentax SupaClean with good results.

Ian Astle, Mansfield, Nottinghamshire

Powering off

After mechanical failures of the power button on both my Palm IIIx and my Palm IIIc, I've hit upon a way to cut the number of power on/off presses in half, thereby extending the life of this rather fragile component. I simply never turn my handheld off manually, reducing the auto-off time to its absolute minimum (30 seconds under Palm OS). The real life impact on battery life is very slight and it's one less button to push each time I use my handheld.

G A Jago, Boston, MA, USA

Pocket PC app shutdown

Once you start up an application on your Pocket PC, it remains open until you tap 'Start | Settings', go to the 'System' tab, tap the 'Memory' icon, tap the 'Running

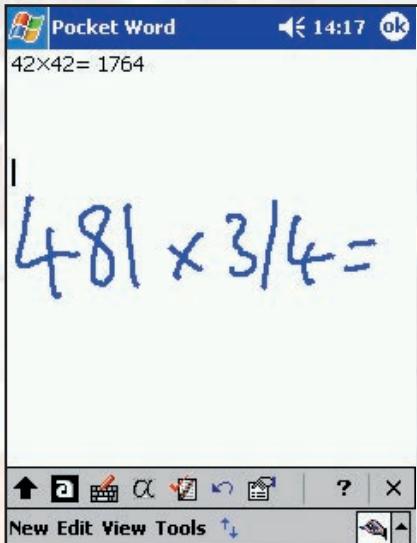
Programs' tab and select and close your program from there. This is a laborious task—especially if you need to regularly close applications to free up memory in order to run others. However, there is a far quicker way to close an application—simply use the on-screen keyboard and tap [Ctl]+[Q]. Most applications support this.

Derek Smedley, Copenhagen, DENMARK

Transcriber's calculator

Pocket PC 2002's handwriting solution, Transcriber, comes with a built-in calculator. To try this, enter a mathematical expression followed by the equals symbol in, say, Pocket Word. Then, when you use the 'Enter' gesture, the sum and the answer appear in your document.

David Dorell, Braintree, Essex



Pocket PC 2002's scribble calculator

Fast PPC appointments

With the large number of fields available when adding a new Pocket PC Calendar entry, I've tried to identify a few useful shortcuts to speed up adding each entry:

1. When selecting an appointment time, hold down the stylus on a timeslot. The Pocket PC 2002 popup menu brings up the New Appointment option, a fraction faster than using New from the menu.
2. Normal timeslots last an hour, but by dragging over a time range before selecting New, you won't need to tweak the Start and End times.
3. The Subject field has a few pre-defined options in the drop-down list, such as 'Meet with' and 'Lunch', and the Location drop-down keeps a record of your common locations. Using these shortcuts will often save a few more seconds.
4. If you find that you're constantly changing the Reminder settings, change the default from the Calendar's 'Tools | Options...' menu command.
5. Note that the date shown just below the Start button is tappable—handy when leaping to a new date.

Theo Harfeil, Frankfurt, GERMANY

Q&A



Get your handheld-related questions answered by our editorial panel...

Handspring scanning...

Q I find it frustrating when entering text on my new Treo 180, to have to get the stylus out to move the cursor backwards or forwards a few places. Is there a third party utility to help out here?

Jane Grifford, Bracknell, Berkshire

A There's actually no need for extra software. Simply use [Option]+[ScrollUp] or [Option]+[ScrollDown] for cursor left and right respectively. Note, by the way, that you can't (for once) use the Treo rocker switch (jog dial) instead.

Psion serial from USB?

Q I have a Psion 5mx, which is marvellous. I've also just bought a Sharp laptop to replace my old desktop computer, but have found that there's no serial port, hence nowhere to plug in my PsiWin connection cable. The laptop has USB, Firewire and parallel ports. Is there any way to match the two bits of equipment?

Brian Sanders, Utrecht, THE NETHERLANDS

A Yes, although you obviously need an adaptor of some kind. Computer superstores often have USB 'port replicators', which include 'legacy' serial connectors, although you may need to experiment with the PsiWin link speed to find one that works. In the UK, Finger Technology (www.fingertech.co.uk) can supply a mail order adaptor that's specially designed for the Psion palmtop.

Psion Agenda for Palm

Q There's something I miss on my Palm m505 that my old Psion used to have. I used to keep two copies of Psion Agenda going at the same time, each accessing a different database. One I would just use as my date book, the other I used as a reference of anniversaries of special events, people, etc. In the latter, Agenda could either show the year in question or the number of years elapsed. Does such a thing exist for Palm OS?

Robert Leggat, Bedford



DateMate offers comprehensive anniversary-to-Date Book support

A Yes, there are several options. Strictly speaking, the closest thing to Psion Agenda in the Palm OS world is probably DateBk5 (www.pimlicosoftware.com), programmed by another ex-Psion user, C.E. Steuart Dewar. This allows the setting up of separate categories of events, with some very powerful (and complex) filtering and viewing options, and it also has a (rather buried) Anniversary feature. Alternatively, you may find that something like Date-Mate (www.mobimate.com) is a much simpler and more elegant solution to handling anniversaries.

Going online via GPRS

Q I've just bought a Palm m505 which I'm trying to use to send and receive emails via a TDK Blue M Bluetooth sled and my Ericsson T38 GPRS phone. My mobile network provider has set me up with its GPRS service from BT Cellnet and I'm using

Genie as my ISP, which in theory ought to be a good combination. I can send and receive emails via GPRS using just the phone itself. I've loaded Web Clipping and MultiMail SE, etc., but however I try to configure it I either get 'GPRS request rejected' or 'Wrong IP' error messages on the phone's display and the Palm m505 then crashes.

BT Cellnet and Genie have checked all my settings but they both say that I need a WAP browser to access email and other WAP services. Is this correct?

Clive Gill, London

A GPRS (General Packet Radio Services) provides an alternative for data connections with higher speeds than previously possible (up to 114kbps versus standard GSM's 9.6 or 14.4kbps). The service provides for 'always on' data connections and, depending on the phone, can allow concurrent use of the phone for normal voice calls.

Unfortunately, the support personnel are correct. As per our latest information, O² (formerly BT Cellnet) has only enabled GPRS browsing for WAP services, not for general IP communications, although it does have plans to provide general Internet access at some point in the future. Vodafone UK, on the other hand, has general internet access via GPRS available today.

But you may not necessarily be out of luck. Nova Media offers a download that can automatically configure communications/network settings for Palm devices running OS 3.5 or greater, for various network providers,

for various phones and for GPRS connections or the alternative HSCSD connections (High Speed Circuit Switched Data).

UK BT Cellnet is included in the list of supported networks (see www.novamedia.de/pages_e/e_mhs_palm.html). Note that the service will create a 'Prefs | Communication' entry that connects to 'Phone' via 'Infrared'... You'll want to change the 'Infrared' to the medium provided by the TDK Blue M installation.

Using the Nova Media service may be a way to avoid having to change providers.

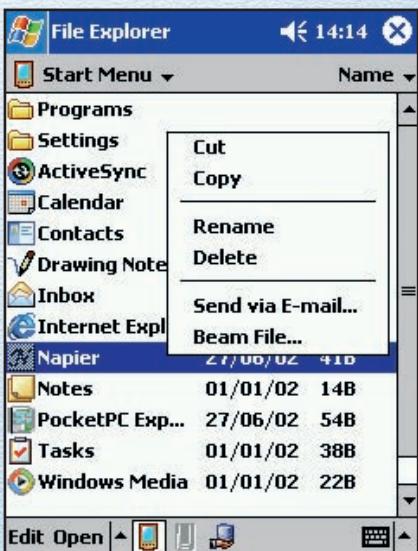
As you've found out, your setup is right on the 'bleeding edge' of current communications technology, and the world of GPRS is still very immature, with incompatibilities galore and much confusion over how to set things up. Palmtop User will be publishing a major feature on GPRS in the very near future.

Redundant Pocket PC icons

Q I regularly try out shareware programs on my Pocket PC. Recently I have noticed that even though I delete unwanted applications, one or two have left their shortcut icons in the Programs folder on the Navigation Bar. Is there any way to safely delete these redundant icons?

David Keely, Canberra, AUSTRALIA

A Firstly, we presume that when you say 'delete' the program, you are actually referring to the term 'uninstall'. It is not unusual that



Deleting unwanted shortcuts...

when a program is uninstalled, the process doesn't delete the shortcut from the Programs folder. If this happens, you will need to delete it manually, and this is a straightforward enough task. Tap 'Start|Programs' and launch the File Explorer. Then go to My Device\Windows\Start Menu\Programs. All the program icons that appear in this folder are in fact shortcuts to applications and not the application files themselves. It is then a simple matter to tap and hold on the offending icon and select 'Delete' from the pop up menu. Return to the Navigation Bar and you should find that the redundant icon has gone.

SD versus MMC

Q I've been told that the new SD memory cards are the same as MMC cards. As MMC cards seem

to be cheaper, can't I just use an MMC card in my Pocket PC? And while we're about it, what's so secure about them?

Sally Krell, Newport News, Virginia, USA

A SD (Secure Digital), MMC (MultiMedia Card) and CF (CompactFlash) are the three types of plug-in memory cards most commonly associated with PDAs, smartphones and digital cameras. Smaller than a CF card, the SD card is physically the same size as an MMC card (though slightly thicker), and you're right, if your Pocket PC has an SD slot, it should be able to read and write to an MMC card as well.

MMC cards are cheaper, partly as it's an 'open standard', whereas SD card manufacturers are required to pay royalties to use key technologies and to carry the SD name.

The 'Secure Digital' name implies that data written to a card is in some way encrypted for protection. By default, data isn't encrypted, although there is software out there to do so. In fact, the security element refers to the method of encryption used by providers of material such as music, e-books and video to protect their copyright, using SD's built-in cryptography. You can find out more about SD at www.sdcard.org.

Hotmail in the hand?

Q I regularly use Hotmail on my desktop computer. Can I get it to work on my handheld too?

Sam Williams, Dortmund, GERMANY

A The Hotmail email service differs to standard POP or SMTP email in that it uses a proprietary format. This means that you can't just add it as a new service to your Inbox. You can access your mail via the Hotmail web interface within Internet Explorer on a Pocket PC or using the Opera web browser on a Psion or Nokia 9210i. To do this, just type www.hotmail.com as the URL, sign in, and you have access to all your Hotmail messages.

Although Hotmail doesn't work from most Palm OS browsers, a very good third party product called 'Pop3Hot' (www.pop3hot.com) will give you POP3 access to your HotMail.

ThinAir provides a workaround procedure to access Hotmail from any PDA browser, it does this for no charge



Hotmail under Pocket Internet Explorer

and you don't have to be a ThinAir customer. See www.thinairapps.com/support/tam_faq.php and read about it under the 'No DeviceID' topic.

Microsoft has been promising direct Pocket PC support for Hotmail for some time now. At the time of going to press, its site states "Offline Hotmail access on your Pocket PC is coming soon. We thank you for your patience while we put the finishing touches on this important enhancement to Pocket Inbox". In the meantime, one enterprising coder, Greg Friege, has released a Hotmail add-on that allows your Hotmail folder structure to be added to Inbox. It has limitations, but until Microsoft releases something official for Pocket PC users, it's all we have. Greg doesn't appear to have a dedicated web site, but the add-on is available via www.handango.com.

Nokia 9210 resets

Q

My Nokia 9210 system software seems to be misbehaving. How can I perform a reset?

Charlie Fennel, Turku, FINLAND

A

Assuming you are referring to a soft reset, the easiest way is simply to remove the battery. When the battery is reinserted, the machine will start up again. An alternative is to use the keypress [Shift]+[Ctrl]+[Chr]+[K]. This will 'kill' the current application, which can be handy if something has caused an application to stop responding.

If you are referring to a hard reset (which will lose all data and return

your unit to factory default settings), then this can be achieved as follows:

Pull the battery out for a few seconds, then replace it. Open the case and wait for the Nokia 9210 splash screen (with the outstretched hands) to be displayed. As soon as it appears, hold down [Shift]+[Ctrl]+[F] for about two seconds. A screen will then appear, asking for confirmation that you want to format the device. Select 'Format', then all data on the C drive will be erased and the factory default settings will be restored.

Nokia database envy

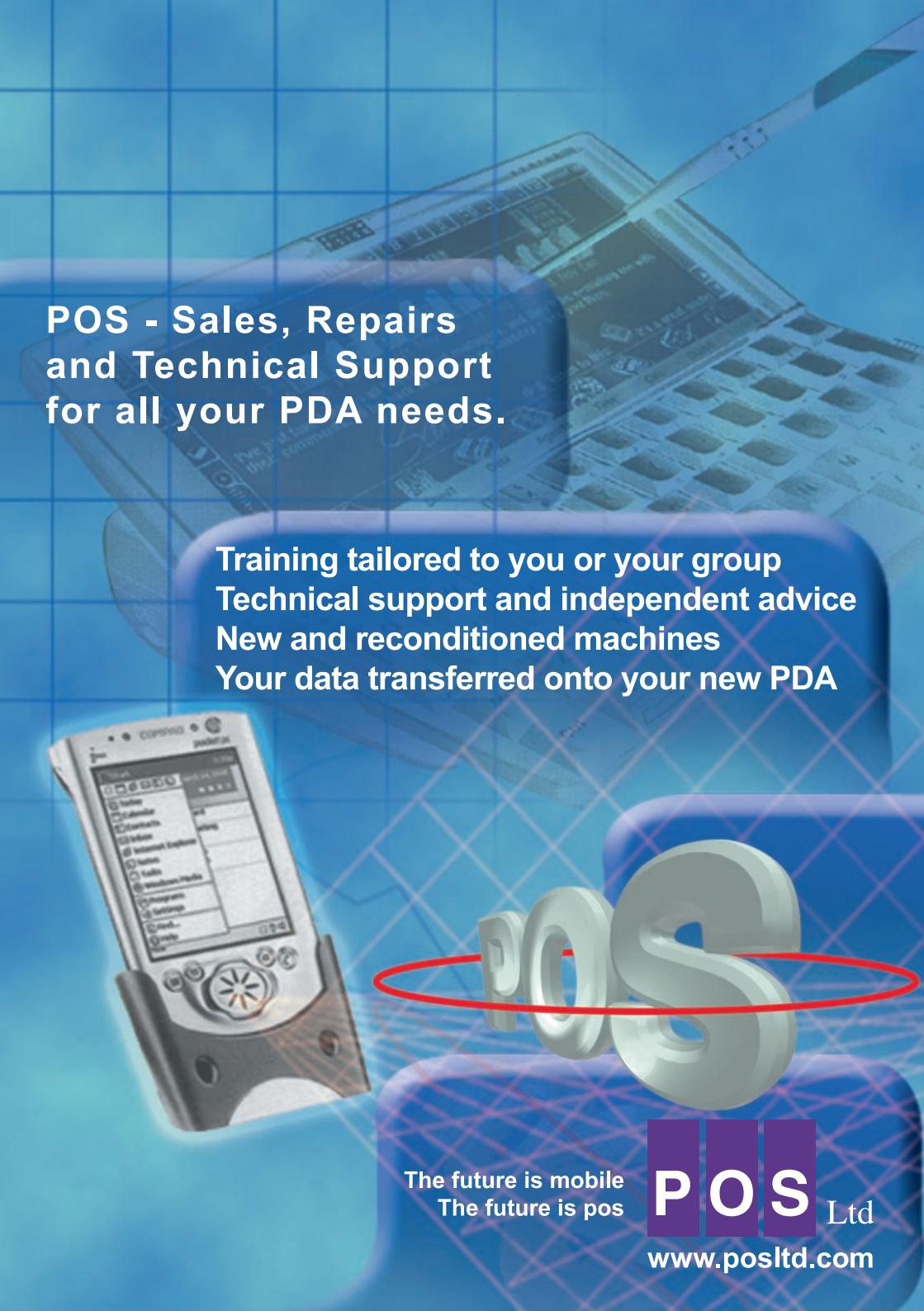
Q

I'm very happy with the 'office' software that's built into my Nokia 9210 communicator, but having just moved from a Psion Series 5mx I'm feeling the need for a flexible database application that I can set up to keep details of my CD collection, etc. Does any such program exist?

Penny Page, Sorrento, ITALY

A

At the time of writing, there are in fact two good database programs available for the 9210/9290. Power Data (\$25, from www.epocware.com) is both powerful and easy to use. SmallBase (£20, from www.pocketiq.com or corisoft.free.fr) offers perhaps a longer feature list, but tends to be somewhat harder to learn. Both programs are maturing fast though, so you may wish to download and try out a demonstration copy of both before deciding which to purchase.



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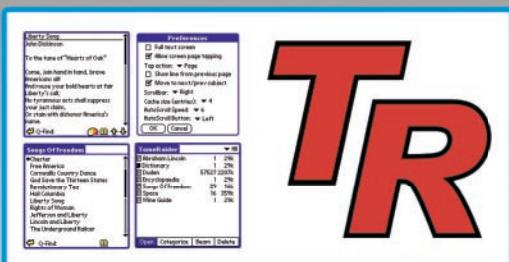


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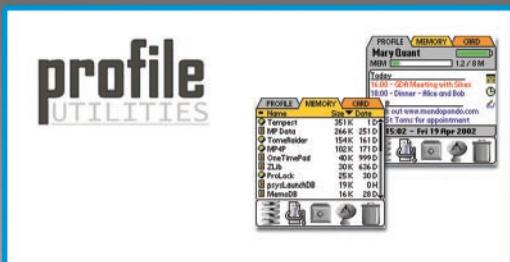
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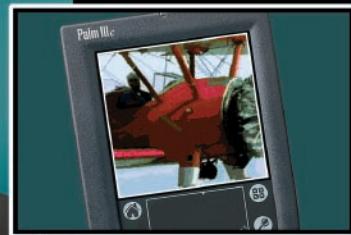
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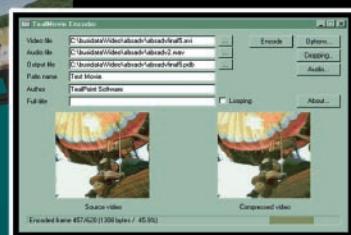
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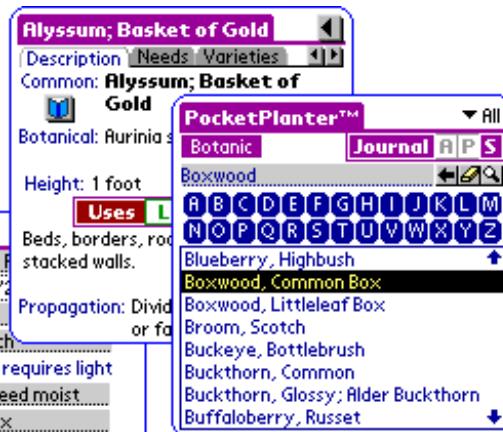
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PsiWin + cables	3a (v1.0)	£20	£60	Berlitz Phrasebook	SSD	£2	£10
Printer link	3a	£1	£10	Games 1/2/3a	SSD	£1	£5
	3c/mx/5	£10	£25	Finance Pack	SSD	£1	£5
3Fax modem	3a	£20	£50	Money	SSD	£1	£5
Psion IR Travel Modem	3c/mx/5	£35	£75	WinLink (2nd ed.)	CD	£1	£5
PC Card Modem Adaptor	3a/3c/mx/5	£15	£45	SOFTWARE - Series 5mx		We Buy	We Sell
Dacon Gold Card 14k	3a/c/mx/5	£15	£40	5 Pack (games)	disk	£2	£10
Dacon Gold Card 56k	3a/c/mx/5	£45	£95	Allegro	disk	£2	£10
AC adaptor	5/5mx	£5	£14	Backgammon	CD	£10	£30
Leather case		£2-5	£5-20	Collins Dictionary	CD	£10	£25
Programming manual		£1	£6	Chess	CD	£10	£30
Cyclone External Floppy	3c/mx/5	£30	£75	Games Arcade	CD	£5	£15
Palmtop GPS Sat receiver	5/5mx/7	£45	£95	Money	CD	£12	£37
Docking Station	5/5mx	£5	£15	Navigator	disk	£2	£10
	Series 7	£20	£50	Street Planner '99	disk	£5	£15
Stylus	5/5mx	£1	£3	Other titles available!	£phone	£phone	

Terms and conditions: All equipment supplied with 3 month guarantee. FREE carriage within UK for orders over £20. We only purchase items in full working order, without cosmetic damage. Buying prices apply to items with original boxes & manuals. Up to 20% discount may apply to equipment not meeting these standards. 3% surcharge applied to credit cards. Prices correct at time of going to press. Offers subject to change without notice.

EPOC Beds, Bucks, Herts User Group

For Psion users with Series 3/ Series 5/netpad/Revo/Siena/Symbian smartphones/
Ericsson MC218

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Email: philipruett@greasyfingers.demon.co.uk

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Next issue...

Planned for issue 2:

- ▶ All the hottest new hardware on test, including the SonyEricsson P800, O² XDA, AlphaSmart Dana, and new PDAs from Handspring, Toshiba, Compaq and Acer
- ▶ Emails in your hand—we look at the most powerful solutions to keep up with emails directly from your palmtop or keep messages in sync with your desktop computer
- ▶ The definitive guide to exchanging data between Psion/Symbian, Palm and Pocket PCs
- ▶ Remote control—all you need to know about accessing and controlling your desktop computer from a handheld
- ▶ Fast input—maximising your data input speed without the aid of a plug-in keyboard
- ▶ Memory to the max—a guide to making the best use of your memory space, handling files and storing data on CompactFlash, SD, MMC, Memory Stick and more...
- ▶ An introduction to Wi-Fi—all you need to know about 802.11b connectivity on your handheld
- ▶ Getting to grips with HanDBase—a brand new workshop series for the forthcoming version 3 of this powerful Palm OS and Pocket PC database application

Plus all the regular features, including news, Hints & Tips, Q&A, Game ZONE, Worth a Read, On The Net and much more...